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ABSTRACT

The 1984-1985 annual report of the Planning and Grants Committee of the Council for Higher Education in Israel is presented. Reports by the Chairman and Director-General note budgetary developments, including increased government allocation to higher education; the imposition of an additional, temporary tuition charge; and the award of new professional academic degrees. The main activities of the Committee and its subcommittees during 1984-1985 are identified, and major developments in the following institutions are summarized: the Hebrew University of Jerusalem; the Technion (Israel Institute of Technology); Tel-Aviv University; Bar-Ilan University; the University of Haifa; Ben-Gurion University of the Negev; the Weizmann Institute of Science; Everyman's (Open) University; Bezalel (the Academy of Arts and Design); the Jerusalem Rubin Academy of Music and Dance; Jerusalem College of Technology; Shenkar (College of Textile Technology and Fashion); and the regional colleges. Appendices provide information on: academic subjects and new university units; students in universities, 1969-1985; students in nonuniversity institutions of higher education, 1982-1985; university and nonuniversity degree recipients; university and nonuniversity staff; university and nonuniversity budgets; the development budget; research grants; and foreign students. (SW)

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המועצה להשכלה גבוהה

The Council for Higher Education

הועדה לתכנון ולתקצוב

THE PLANNING AND GRANTS COMMITTEE

Annual Report No. 12

Academic Year 1984/85

* * * * *

Summary of the Planning and Grants Committee's Activities 1979-1985

Presented to the Council for Higher Education

Jerusalem, November 1985

BEST COPY AVAILABLE

Translation from Hebrew and Editing: Yael Atiyah

The Planning and Grants Committee

P.O.B. 4037, Jerusalem 91040, Israel

CONTENTS

		Page
1	The Chairman's Review	5
2	The Director-General's Report	9
3	The Planning and Grants Committee (PGC)	15
4	The Higher Education System in 1984/85	20
5	The PGC's Main Spheres of Activity	33
6	The PGC and the Government and the Knesset (Parliament)	67

Appendices:

1	Subjects Discussed at Meetings of the Planning and Grants Committee in 1984/85	73
2	New Units Opened in the Universities in 1984/85	75
3	Subjects Discussed at Meetings of the Council for Higher Education	76
4	Fields of Study in the Institutions of Higher Education	77
5(A)	Students in Universities, 1969/70-1984/85	78
5(B)	Students in Non-University Institutions of Higher Education, 1982/83-1984/85	78
6	Students in Universities by Level of Study - 1984/85	79
7(A)	Recipients of Degrees in Universities, 1969/70-1983/84	80
7(B)	Recipients of Degrees in Non-University Institutions of Higher Education - 1982/83, 1983/84	81
8(A)	Active University Staffs - Annual Average 1982/83	82
8(B)	Active University Staffs - Annual Average 1983/84	83
8(C)	Staff in Non-University Institutions of Higher Education - 1983/84	84
9	The Ordinary Budget of the Universities - 1983/84, 1984/85	85
10	The Ordinary Budget of the Non-University Institutions of Higher Education - 1983/84, 1984/85	86
11	Implementation of PGC Allocations to the Higher Education System -1984/85	87
12	Matching Allocations to Endowment Funds 1984/85	88

		Page
13	Development Budgets of the Universities - 1983/84, 1984/85	89
14	The Development Budget - 1973/74-1984/85	90
15	Grants from the Basic Research Foundation - 1984/85	91
16(A)	Perach (Tutorial Project) Activity - 1984/85	92
16(B)	Perach Tutors in Universities 1976/77 - 1984/85	92
17	Foreign Students in Universities - 1983/84, 1984/85	93
18	Students in Pre-Academic Preparatory Courses - 1984/85	93

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The Chairman's Summary of the Planning and Grants Committee's Activities 1979-1985 95

1 THE CHAIRMAN'S REVIEW

The Planning and Grants Committee (PGC) of the Council for Higher Education is completing its "Bar Mitzva" (13th) year in the midst of the all-out effort of the State to extricate itself from its deep financial crisis. Recovery from any severe crisis requires a first stage of braking and stabilization followed by improvement, progress and growth. Such is the case with the current financial crisis as well as with the crisis confronting higher education.

A deep and continuing crisis in the higher education system and in scientific research has been a part of this financial crisis and even precedes it. In fact, the plight of higher education stems from the time when other sectors of the economy were still "living high". When the public sector work force grew and mushroomed, the universities admitted a large number of additional students without increasing the number of teachers, researchers and other staff. When the State budget grew, in real terms, government allocations to universities decreased significantly. When the country was inundated with color TV sets and video recorders, budgets for scientific equipment and university libraries diminished. Academic staff wages in the universities were adjusted to wage fluctuations in the economy, although after a certain delay; they certainly did not increase faster than the norm.

As these lines are written the effort for the stabilization of the economy continues. The higher education system - institutions, teachers, employees and students - continues to contribute its share in this effort by restricting activities, conceding wages and benefits, raising tuition fees and by "tightening the belt" in many areas.

In 1984/85 the higher education system attempted to extricate itself from the deficit spiral of 1982/83 and 1983/84. In these two years the system accumulated budgetary deficits of tens of millions of dollars. For most of these deficits responsibility lies with the Government, which did not honor committments and forced the system to carry out arbitrary and unreasonable edicts; for some deficits, responsibility lies with the administrations of some of the institutions, which acted as if the tight budgetary situtation did not affect them.

Prior to the opening of the 1984/85 academic year the PGC made it clear to all concerned that it would not and could not continue to carry out its duties unless the gap between the income of the universities and their expenses was closed. This necessitated an increase in the government allocation, although much smaller than the budget cuts of 1983/84, a further cutback in university expenses (especially of those institutions that had brought deficits upon themselves) and an increase in income from donations, tuition fees, endowment funds, sale of services and the like.

After lengthy negotiations and discussions, the Minister of Finance decided at the beginning of the academic year to propose a certain increase in the higher education budget. The PGC, for its part, undertook to ensure that the institutions of higher education would return to orderly, agreed and balanced budgets, while increasing their income from non-government sources and reducing their activities.

Upon the conclusion of the 1984/85 academic year, we may now state that both parties have fulfilled their obligations. The Government did, indeed, for the first time in many years, increase its allocation to higher education. The amounts involved do not, however, reach the level of government participation in the higher education budget a few years ago, and certainly do not reflect the increase in the number of students and the need to strengthen scientific research. However, the Government is to be commended for halting, if only partially, the deterioration of the higher education system, and this at a time when economic hardship and budgetary restrictions prevail in most sectors of the economy. For the first time in three years most of the government allocations were transferred on time, without intentional delays or changes during the academic year. The PGC also fulfilled its obligation to the Government; budgets were balanced and the system operated without accumulating additional deficits.

If we were dealing with a business enterprise, we could congratulate ourselves on finishing the year with a balanced budget and ending the period of operational deficits, although most of the deficits accumulated in previous years still cast their shadow over the system. However, the institutions of higher education are not business enterprises and their success is not measured by their annual balance sheets.

The criterion for the success of universities in any period is the state of the country ten or fifteen years later. Every economic take-off must start with human and financial investments. The process of acceleration on the runway must include an injection of genuine encouragement for the higher education system. The best engineers and economists, physicists and managers, doctors and agricultural experts of the year 2000 are now studying in the universities. The scientific equipment they use, the number of students with them in the same classroom or laboratory, the quality of the library and computer at their disposal, the level of those who teach them - all these will determine Israel's character in another decade or two. 1984/85 and the preceding years will not be fondly remembered fifteen years from now, when the true academic balance sheet is drawn up for these years. Despite the importance of the financial balance sheet, it must be kept in mind that the academic balance sheet is immeasurably more important.

Despite all the criticism, worry and unpleasantness, there were also a few rays of light in 1984/85. For the first time in many years there has been an increase in the number of students in the vital scientific and technological fields. The PGC devoted a considerable part of the budgetary supplements to encouraging and developing these subjects, both by special earmarked allocations and by giving priority in the appropriation of the global allocation to those institutions that contributed to these subjects. The inter-university computer network was developed and connected to university computers abroad. All the universities in Israel are now connected to international computer networks, and this daily contact with researchers and scientists in the US and western Europe contributes much to the advancement of research in Israel. The process of gradual authorization to award the master's degree and the Ph.D. in certain subjects continued at the University of Haifa and Ben-Gurion University of the Negev. The academization of para-medical professions (financed by the health system) and the academization of a number of teacher training colleges (financed by the Ministry of Education and Culture) continued. The rate of increase of student numbers in the universities in the center of the country came to a stop while the number of students in the north and the south increased. These rays of light stem in a large measure from the PGC's objectives for the planning of the higher education system, formulated and published in the middle of 1982/83. We hope that these positive trends will continue even more strongly in the years to come.

As these lines are being published, I complete my six-year term of office as Chairman of the PGC. A summary and evaluation of these years appears in the second part of this report.

As I finish my term of office it is my pleasure to note the support and assistance of the Minister of Education and Culture, Mr. Yitzhak Navon, who has, as always, stood by the higher education system, followed all its struggles and viewed it as the foundation upon which our future will be built. The few rays of light we saw in 1984/85 are due, in a large measure, to the assistance of the Prime Minister, Mr. Shimon Peres, and the Minister of Finance, Mr. Yitzhak Modai. My deepest gratitude to all three.

November 1985 Haim Harari

2 THE DIRECTOR-GENERAL'S REPORT

1984/85 was, in general, a year of consolidation, in which it was possible to return to agreed budgetary frameworks based on clear and stable indices, thus enabling the institutions of higher education to return to orderly functioning in their internal financial management and their contacts with the PGC. The Ministry of Finance must be credited with creating budgetary certainty and regularity in financing, and with willingness to begin a new perspective for 1985/86 and 1986/87.

This new perspective darkened somewhat however, due to the budget cuts that followed the Government's new economic stabilization plan proclaimed on July 1, 1985. The negative implications of these decisions are expected to be felt in 1985/86, despite the fact that the PGC adopted a policy of minimizing budgetary changes from 1984/85 to 1985/86. Further discussions with the Ministry of Finance to reopen an acceptable perspective for the coming years are inevitable.

In addition to decisions on budgetary restrictions, external interference regarding greater efficiency in the higher education system by means of administrative edicts caused much concern to the PGC.

Two facts do not justify any such external interference: first, the continuing process of gradual reduction in the portion of the income of the higher education system deriving from government allocations; secondly, the absolute size of these allocations, which are equivalent to about US$ 230 million, or 1% of the total State budget.

Furthermore, the marginal benefits of such proposals are outweighed by their drawbacks: the shocks and uncertainties they cause and, especially, the certain damage to the image of the institutions of higher education as symbols of intellectual values and a lodestone for those who seek and promote knowledge.

All this does not exempt the institutions, individually, from vigilance in economizing on resources, nor does it exempt them, collectively, from diligently maintaining a balance between income and expenditures, particularly regarding

wage agreements. The PGC views it as its duty to assist the system and the institutions in this mission because of its long-range importance.

With this view in mind, in 1984/85 the PGC paid special attention to establishing and maintaining binding budgetary frameworks for the institutions. The PGC cannot be completely sure that the institutions were, indeed, able to maintain the agreed frameworks; they may, as in the recent past, be forced to accumulate certain deficits in order to cover their expenses. The result might well be suspension of the passage from the stage of consolidation to the stage of expansion. The budgetary frameworks established for 1984/85 gave expression to the PGC's policy of accelerating, in particular, the expansion of the number of students admitted to preferred subjects, such as electronics and computers. A new, intensive, course of study for practical engineers in electronics to enable them to become engineers, opening in Tel-Aviv University in 1985/86, is intended as a temporary solution to the demand for these professions, as part of the expansion policy.

A review of the budgetary developments in 1984/85 would not be complete without mentioning the intensified efforts to assist Ben-Gurion University of the Negev and Jerusalem College of Technology in overcoming the special difficulties they faced. There is reason to believe that the greatest part of their financial recovery, which involved reforms in these institutions, has been achieved.

The structure of the income of the institutions of higher education permits them a certain degree of academic development even in times of budgetary stress. One of the important components of academic development is slow but continual development of new fields of study, especially in the humanities and the social sciences, and extension of existing fields of study to include studies for advanced degrees. Additional aspects are expansion of the frameworks for studying advanced technology and computers, improvement of equipment and completion of the array of studies offered in basic studies, such as veterinary medicine, which will be offered for the first time in 1985/86.

Academic development considered as structural changes includes the academization of existing subjects, carried out primarily in two main fields: the training

of teachers in colleges operated by the Ministry of Education and Culture, and the training of nurses, occupational therapists and physiotherapists in hospitals and universities, financed by the health system. In 1984/85 possibilities for expanding the academic framework for training teachers for technological high schools was discussed. The special aspect of the academization of these subjects is the award of new professional academic degrees alongside the general academic degrees awarded by the universities.

The structural changes accompanying the academization of the above subjects have brought about a reduction in the pressure to admit additional students to the universities and, at the same time, an increase in the number of non-university institutions of higher education not funded by the PGC.

The academization of professional training alleviates the pressure of students seeking admission to the universities. This pressure exists primarily in the densely populated central part of the country and is expected to increase in the future. The PGC devoted much thought and effort to this problem this year, in order to find ways of admitting all those who will seek higher education in the coming decade, especially for the bachelor's degree. The common element in all the alternatives discussed is that there will be no need to establish any new university in the foreseeable future: the existing universities are sufficient for all teaching and research requirements for the master's and Ph.D. degrees in this period.

Any new program will, no doubt, have to take into consideration budgetary limitations, anticipated in the future also, and will have to strive for relatively low marginal cost, as a preferred alternative to admitting a smaller number of qualified students. A practical solution to this problem is the central planning task facing the PGC.

In 1984/85 non-university institutions of higher education funded by the PGC were, under certain conditions, allowed to confer the title of professor. The salary and conditions of employment of these professors are not necessarily identical with those of professors in the universities.

Special extra-curricular programs of study in various subjects - for different sectors of the population, including adults - are expanding in the universities

and the colleges associated with them. No central planning or direction is necessary for these programs of study. They are self-supporting and, furthermore, provide a welcome service for the general public.

The imposition of a special temporary tuition levy (over and above the existing tuition fees) in the institutions of higher education was one of the more controversial events in 1984/85. The solution chosen - a reduced levy in 1984/85 and an enlarged levy in 1985/86 and 1986/87 only - is a compromise between a substantive amendment to the tuition fees determined by the "Katzav Committee" or the imposition of levies, leaving basic fees unchanged. The levy naturally imposes an additional financial burden upon students, even if this is not reflected in increased applications for loans and assistance or even in applications for admission in 1985/86. Government and institutional assistance programs were expanded in order that students from weaker socio-economic strata of society not be excluded from higher education. Efforts to simplify the procedures for obtaining government assistance for tuition fees continue.

In 1984/85 the draft amendment of the Council for Higher Education Law was completed. This is intended to replace the existing law and provide the PGC with a legal standing based on experience gained during the years of its existence. The draft was circulated among government ministries, members of the Council for Higher Education and the institutions of higher education.

The PGC also dealt with the following topics during the year:

- consolidation of the various elements of the data systems currently being built;
- compilation of data on employees in the institutions of higher education in 1982/83 and 1983/84 as a continuation of data collected on 1981/82, as a basis for methodical data collection beginning with 1984/85;
- updating of the guidelines for the preparation of budgets. The guidelines eased discussions on budgetary frameworks and PGC allocations for 1985/86 and follow-up on budget implementation for 1984/85;
- cessation of endowment funds from the past and updating the guidelines for reporting on endowment funds, the interest accruing to them and the uses to which they are put;

- discussions on reports by the State Comptroller on most of the institutions and a special report on wages;
- publication of an up-to-date statistical abstract;
- examination of creeping wages and wage agreements;
- an agreement for the suspension of foreign currency expenses from the budgets for scientific relations and sabbatical leave expenses;
- pension insurance in the institutions.

* * *

This year, as in other years, there were personnel changes in various areas. Prof. Haim Harari succeeded Prof. Shmuel Shaltiel as chairman of the public council for Perach (Tutorial Project) and the undersigned succeeded Mr. Gedalia Yaacoby as chairman of the directorate of Perach. Mrs. Techia Karcz succeeded Mr. Dov Keren-Ya'ar as Secretary of the Council for Higher Education and Mr. Gury Zilkha joined the PGC staff and is in charge of budgets. At the end of the year Prof. Daniel Sperber completed his term of office as member of the PGC and was appointed Dean of the Faculty of Jewish Studies at Bar-Ilan University. The PGC will part shortly from its veteran accountant, the Deputy Accountant-General of the Ministry of Finance, Mr. Mendel Lieberman. He will be succeeded by Mr. Yitzhak Ganor. Our best wishes to all.

Special tribute is due to Mr. Shmuel Bendor, Consultant to the PGC since its establishment, who is retiring from active service. His profound knowledge of the higher education system in Israel and abroad and his wise advice have served the PGC well over the years.

With the publication of this report the PGC takes leave of Prof. Haim Harari, its Chairman for six years, and prepares to welcome his successor, Prof. Jacob Ziv.

Prof. Harari's contribution to the higher education system is too great to be recounted here and a mere thanks does not express what we all feel. We are confident that in the future, also, he will continue to contribute his talents to the higher education system and to Israel.

November 1985

Simcha Landau

3 THE PLANNING AND GRANTS COMMITTEE (PGC)

Members:

Prof. Haim Harari - Chairman

Prof. Nehemia Levtzion

Mr. Gurion Meltzer

Prof. Kenneth Preiss

Mr. Simha Soroker

Prof. Daniel Sperber

Administration:

Mr. Simcha Landau	- Director-General
Miss Ruth Silberberg	- Deputy Director-General and i/c Development and Planning
Mrs. Techia Karcz	- Secretary, Council for Higher Education and PGC (as of April 1, 1985)
Mr. Gury Zilkha	- i/c Budgets (as of April 1, 1985)
Mr. Shmuel Bendor	- Consultant

3.1 Terms of Reference of the PGC

The Terms of Reference of the Planning and Grants Committee, as set forth in Government Decision no. 666 of June 5, 1977, are as follows:

1. To be an independent body coming between the Government and the national institutions, on the one hand, and the institutions of higher education on the other, in all matters relating to allocations for higher education. The Government and the national institutions shall refrain from receiving requests or recommendations from the institutions of higher education or from any other source. They shall also refrain from allocating funds to an institution of higher education other than on the recommendation of the Planning and Grants Committee.
2. To submit the ordinary and development budget proposals for higher education, taking into account the needs of society and the State, while safe-guarding academic freedom and assuring the advancement of research and learning.
3. To have exclusive authority to allocate to the institutions of higher education the global approved ordinary and development budgets.
4. To submit to the Government and to the Council for Higher Education plans for the development of higher education, including their financing.
5. To encourage efficiency in the institutions of higher education and coordination between them with a view to preventing superfluous duplication and encouraging economy.
6. To ensure that budgets are balanced and that there are no deviations from them.
7. To express its opinion to the Council for Higher Education before the Council reaches a decision on the opening of a new institution or a new unit having financial implications in an existing institution. The considered opinion of the PGC will include answers to the following questions:
   a. Is there a need for the new institution or for the new unit?
   b. What are the financial implications of opening the new institution or the new unit?

   The PGC will determine whether the opening of the new unit has or has not financial implications.

3.2 The Work of the Committee

The PGC operates within three different frameworks.

3.2.1 Plenary Sessions

Between October 1984 and September 1985 the PGC held 29 sessions, including two joint meetings with the Committee of Heads of Universities (December 1984 and April 1985) and a meeting with the heads of the Budget Division of the Ministry of Finance (March 1985).

A list of subjects discussed in PGC sessions appears in Appendix 1.

3.2.2 Sub-committees

The following sub-committees were active in 1984/85:

- The Sub-committee for Matching Allocations to Endowment Funds;
- The Sub-committee for Scientific Equipment;
- The Selection Committee for Yigal Allon Fellowships;
- The Sub-committee for Computers;
- The Inter-University Computing Center Directorate;
- The Sub-committee for University Libraries;
- The Steering Committee for the Inter-University Library Network;
- The Inter-Institution Academic Committee for the Institute for Desert Research;
- The Executive Committee of the Inter-University Center in Eilat;
- The Sub-committee to Examine the Academic Training of Teachers for Technological High Schools.

Members of the PGC serve as chairpersons or members of most of the sub-committees. Other members are selected according to their area of specialization from among the senior staffs of the universities, the private or public sectors. Committee members do not receive any remuneration for their services. PGC staff members serve as committee coordinators.

3.2.3 The Administrative Staff

The PGC's administrative staff is divided into three sub-units:

- planning and development, including statistics and academic planning;
- the ordinary budget, including wages and matching allocations;
- the secretariate of the Council for Higher Education and the Planning and Grants Committee.

The staff is composed of 19¼ established posts. Senior staff members are listed on page 15.

The administrative budget for 1984/85 amounted to approximately 620 million Israeli Shekels (IS).

3.3 The PGC and the Council for Higher Education

The PGC is represented in the Council for Higher Education by its Chairman, who is ex-officio a member of the Council. He regularly informs the Council of the PGC's activities.

The PGC advises the Council in such matters as the approval of new units or accreditation of new institutions, taking into consideration planned development of the higher education system, financial implications and the needs of the State.

Since 1980/81 new units are processed according to the following rules, agreed upon with the institutions of higher education and approved by the Council:

a. The institutions will inform the PGC of their plans for any new unit or change in existing units;
b. The PGC will examine the proposals from the point of view of the needs of the State, prevention of unnecessary duplication and financial considerations;
c. If the PGC is of the opinion that the new unit has no financial implications and there is no need to examine it from the aspects of the needs of the State or unnecessary duplication, the PGC is authorized to merely take note

of the new unit or change and notify the institution concerned and the Council for Higher Education;

d. If the proposal has financial implications or must be examined from the above aspects, the PGC must present its opinion on the matter to the Council.

A list of new units in the universities which opened in 1984/85 according to these procedures - after the PGC's notification that they did not require the prior approval of the Council - appears in Appendix 2.

A list of subjects discussed in Council meetings appears in Appendix 3.

4 THE HIGHER EDUCATION SYSTEM IN 1984/85

4.1 General Data

In 1984/85 the higher education system consisted of:

- seven universities:
  - The Hebrew University of Jerusalem;
  - The Technion - Israel Institute of Technology;
  - Tel-Aviv University;
  - Bar-Ilan University;
  - The University of Haifa;
  - Ben-Gurion University of the Negev;
  - The Weizmann Institute of Science;
- Everyman's (Open) University;
- four non-university institutions of higher education that are accredited and authorized to award the bachelor's degree:
  - Bezalel - Academy of Arts and Design, Jerusalem;
  - The Jerusalem Rubin Academy of Music and Dance;
  - Jerusalem College of Technology;
  - Shenkar - College of Textile Technology and Fashion;
- an academic course in the Ruppin Institute of Agriculture that is accredited and authorized to award the bachelor's degree;
- an academic course in the College of Administration that is licensed as an institution of higher education but is not yet accredited;
- academic courses in regional colleges for which universities are responsible academically (a list of regional colleges appears in section 5.6.2);
- six teacher training colleges that are licensed or accredited, fully or partially:
  - Michlala - Jerusalem College for Women;
  - The David Yellin Teachers College;
  - Beit-Berl Teachers Training College;
  - The Zinman College of Physical Education at the Wingate Institute;
  - Levinsky Teachers College (licensed but not yet accredited);
  - State Teachers College Seminar Hakibbutzim (licensed but not yet accredited).

Information on fields of study in the institutions of higher education appears in Appendix 4.

The PGC funds accredited institutions of higher education that are not teacher training colleges. These are funded by the Minsitry of Education and Culture.

In 1984/85 there were approximately 61,200 students in the universities studying for academic degrees and diplomas, as opposed to 60,600 the previous year. Approximately 3,900 studied in the universities in special programs that do not lead to academic degrees or diplomas (excluding external programs and pre-academic preparatory courses, etc.). There were approximately 2,900 students in non-university institutions of higher education. In Everyman's (Open) University there were approximately 12,000 students taking academic courses, equivalent to about 2,000 full-time students in a regular university. Data on students in universities and non-university institutions of higher education appear in Appendix 5.

Approximately 44,350 (73%) of the students were studying for the bachelor's degree, 12,760 (21%) for the master's degree, 3,200 (5%) for the Ph.D. and 820 (1%) for a diploma (mainly secondary school teaching certificates). Data on degree levels of university students appear in Appendix 6.

In 1984/85 approximately 10,650 students received academic degrees from institutions funded by the PGC, 73% of them the bachelor's degree, 18% the master's degree, 3% the Ph.D. or its equivalent, and the remainder diplomas or certificates. More recent data are not yet available. Data on recipients of degrees appear in Appendix 7.

Data on staff in the universities and non-university institutions of higher education appear in Appendix 8. These data refer to 1982/83 and 1983/84. (Data for 1984/85 are not yet available).

4.2 Major Developments in the Institutions of Higher Education*

4.2.1 The Hebrew University of Jerusalem

In 1984/85 the University completed preparations for the change-over to the semester system to begin in the 1985/86 academic year. Programs of study were adapted accordingly.

A study program was established leading to a "Master in Chemical Technological Management" jointly run by the Graduate School of Applied Science and Technology and the School of Business Administration.

A study program leading to a diploma in Hebrew language, specializing in editing and the art of speech was approved and will be opened in 1985/86.

The University decided to introduce a general studies program in the Faculty of Humanities which, when taken together with another study department, will lead to the bachelor's degree.

The University also decided to introduce an advanced, inter-faculty study program leading to the master's degree and Ph.D. in biotechnology. (This program requires the approval of the Council for Higher Education).

As part of the process of medium and long-term academic planning going on at the University, discussions on the Development Plan of the Faculty of Natural Sciences to the year 2000 have been concluded. During 1985/86 the academic development plans for the Faculties of Medicine and Agriculture will be discussed.

1984/85 was the University's 60th Anniversary Year. In the context of special activities throughout the year to mark 60 years of academic achievements, a large number of major scientific symposiums were held in which scientists from different countries and fields of research met with their colleagues from the Hebrew University and other Israeli universities.

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* Information in this section was supplied by the institutions.

4.2.2 The Technion - Israel Institute of Technology

In October 1984 the Technion celebrated its 60th anniversary. To mark this event, an international symposium on the subject on revival through technology was held, to which Israeli and foreign participants were invited.

By the end of 1983/84, 24,263 students had received bachelor's degrees from the Technion, 4,307 the master's degree, 1,123 the Ph.D. and 495 the M.D.

In 1984/85 the number of undergraduate students admitted to the Technion increased significantly. 1,757 students were admitted for graduate studies, compared to 1,526 in the previous year. The Technion, in response to the needs of the economy, increased in particular the number of students admitted to the Faculties of Electrical Engineering, Computer Sciences and Mechanical Engineering. The number of graduate students also increased from 1,756 in 1983/84 to 1,876 in 1984/85.

In the middle of 1985 a discovery by Prof. Daniel Shechtman was published and gained world-wide renown. Prof. Shechtman discovered the mineral "Shechtmanite" - a mineral with a new crystal structure whose existence hitherto was only speculative.

The Technion continued its efforts to make the micro-computer a teaching tool. Five faculties now operate computer libraries in which about 400 micro-computers are available to students. A laboratory for decentralized computing and a laboratory for VLSI were established jointly in the Faculties of Electrical Engineering and Computer Science.

Emphasis was placed on contracted research in biotechnology and research for new medicines. A group of researchers obtained the necessary finances to continue the development of products with commercial potential.

Computerization of the central and department libraries began in 1984/85. A VAX computer was purchased for this purpose and several collections and records were put on the computer.

At the end of the year the multi-purpose building was completed and in 1985/86 the Faculty of Architecture will move to the main Technion campus on Mt. Carmel.

4.2.3 Tel-Aviv University

Tel-Aviv University offers studies in over 90 departments and 10 schools, organized into nine faculties. In addition, 50 research institutes are part of the University.

In 1984/85 there were 13,000 students studying for the bachelor's degree; 3,900 for the master's degree; 811 for the Ph.D.; 850 for various diplomas (including teaching certificates); 860 for advanced degrees in medicine; 338 Israelis and 142 immigrants studied in preparatory courses; 200 students studied in the special American program in the Faculty of Medicine; 315 students in a special program for foreign students; and 6,500 extra-mural students.

The academic staff included 969 senior staff (in January 1985) and about 680 teachers in the Faculty of Medicine (most of whom are doctors in the clinical divisions).

In 1984/85 the University's academic authorities approved the following:

- new master's degree programs in health administration, occupational health and the teaching of Arabic;
- a special program, intended for practical, non-academic engineers, leading to a bachelor's degree in electrical engineering and electronics;
- a bachelor's degree in nursing (generic) (this requires the approval of the Council for Higher Education);
- a non-dissertation master's degree program in social work.

In 1984/85 the University introduced a diploma program for graduates in theater arts; 10 new academic chairs were established in various research fields, bringing the total to 85; seven agreements for cooperation with universities abroad were drawn up; the Department of Chemistry became the School of Chemistry, comprising three departments.

The University held a study day for senior academic staff, devoted to discussion on the following topics: the need to improve the teacher/student ratio; the strengthening of doctoral studies; the possibilities of fulfilling increased demand for admission without significantly increasing the number of undergraduate students.

4.2.4 Bar-Ilan University

1984/85 was marked by cutbacks. Academic staff numbers decreased by about 5%.

The number of students at different degree levels was as follows: 10,599 studying for the bachelor's degree and in special programs; 1,553 for the master's degree; 300 for the Ph.D.; 270 for various diplomas.

Encouragement of applied research, especially in the natural sciences, was fruitful in 1984/85; progress was made on continuing projects and new research projects were initiated. Some of these projects will show results in coming years.

Graduate studies were inaugurated in several departments: a Ph.D. program in computer sciences and a master's degree program, with dissertation, in business administration. Computer sciences were expanded by increasing the number of students. A new computer was acquired for the Computer Sciences Department.

In the Faculty of Jewish Studies emphasis was on computer-assisted research. The business administration program in the Department of Economics was strengthened. A new undergraduate minor in bibliographic studies was inaugurated.

The technological education program, opened in 1983/84, showed accelerated development in 1984/85, with increased student numbers and equipment.

The university hosted a number of international conferences.

4.2.5 The University of Haifa

The University continued its efforts to maintain high standards of research and teaching, and to recruit new staff members. Despite the reduced means available to it, a number of outstanding scholars in different fields joined the University staff.

In 1984/85 the Council for Higher Education approved the University's plan to commence doctoral programs in education and political science. The University's Graduate School operates these new programs.

The University's Research Authority encourages research through initial and current logistical assistance (such as allowances for the preparation of research proposals, exploratory research projects, printing, etc.). In 1984/85 the Authority published a research catalog containing information on academic staff research projects, institutes, centers and other units and the research projects carried out in them.

Following the guidelines of the University's Board of Governors, the University is considering establishing two new units on the faculty or school level: in business administration and law. The University is convinced that teaching and research in these fields are vital for its academic consolidation.

Despite the financial difficulties facing the University, the administration continues its efforts to maintain the library's high level of acquisitions and services. Computerization of the library is proceeding in spite of budgetary limitations.

The University is doing its utmost to develop the Computing Center for the benefit of the academic staff and for teaching purposes.

4.2.6 Ben-Gurion University of the Negev

The opening of the 1984/85 academic year was delayed for two weeks due to difficulties in obtaining approval of the University's budgetary framework. The budgetary framework for 1984/85 was finally determined and agreed upon

in January 1985, based on cutbacks in personnel. As part of its stringency measures a committee was set up to advise the rector in the allocation of resources to the faculties.

Study programs for students from overseas were formulated and prepared with the encouragement of the Steering Committee for Overseas Students.

In the Department of Mathematics and Computer Sciences a new VAX computer, together with complemental equipment acquired during the year, assisted teaching. New study courses were opened in physics and computer sciences, biophysical chemistry and biotechnology, which is a joint program of the Department of Biology and the Department of Chemical Engineering. Development continues of interdisciplinary research groups studying the chemistry of organic metals and the surface spectroscopy of attached molecules.

The Council for Higher Education authorized the University to award the master's degree in the Faculty of Humanities and Social Sciences in the Departments of Economics, Education, Geography, Behavioral Sciences and History. The first graduates of the Department of Social Work completed their studies in 1984/85.

The Department of Electrical Engineering utilized new techniques involving video and closed-circuit TV studies in its frontal teaching methods. A new building for the Department of Electrical Engineering was inaugurated in 1984/85 and lectures and research will take place there as of 1985/86.

An inter-departmental computing center was set up based on VAX-750 and Array Processor F-120 computers and a system for processing images and symbols. This center will enable the development of research and teaching in the fields of computer engineering.

The bachelor's degree course in the Department of Industrial Engineering and Management was expanded to cover the field of information systems: the Department was equipped with new micro-computers and robots.

The Department of Health Sciences held two international congresses on medical ethics and decision making in medicine. The first graduates of the nursing program received the degree of Bachelor of Nursing and the University was authorized to award the bachelor's degree in physiotherapy.

An international center for desert studies was established in the Institute for Desert Research in Sde Boker and two international conferences were held.

A number of research centers were set up in 1984/85 in the fields of economic planning, computer sciences, and medical ethics according to Jewish law. Academic chairs were established in the following fields: geography and regional planning; saline water irrigation; systems and operations; petrology; and neurology. Two Career Development Chairs were inaugurated.

4.2.7 The Weizmann Institute of Science

1984/85 was characterized by increased interdisciplinary cooperation in various fields and significant growth in the number of Institute Research centers. Prominent among the latter are the Center for Research of Tropical Diseases and Parasitism, the Center for Wheat Research and the Center for Plant Sciences and Agriculture.

The cornerstone of the Solar Tower and its "heliostatic field" which constitute the Canadian Institute for the Energies and Applied Research was laid: they will serve as prototypes for the utilization of high temperatures obtained from the sun for chemical and physical reactions.

Study programs at the Feinberg Graduate School were also expanded during 1984/85 to keep them in line with rapid developments in research in the natural sciences and mathematics and to maintain close contact between the School and the international scientific community. The total enrollment this year was 498 (198 studying for the M.Sc. degree and 300 for the Ph.D.) distributed in the following departments: 250 in the life sciences; 98 in chemistry; 62 in physics; 79 in mathematics and computer sciences; 6 in science teaching. 20% of these students came from abroad. A total of 100 lecture courses and 20 lab courses

are offered in different subjects. In 1984/85 the total number of candidates increased, in particular the number of M.Sc. applicants in the life sciences and computer sciences.

Throughout, emphasis was placed on topics at the forefront of modern science. Among them: genetic engineering, research into the brain and behavior, artifical intelligence and advanced programming languages in computer sciences. The School's central laboratory was enlarged, equipment modernized, the number of computer terminals increased and advanced computers for developing software for artificial intelligence made available to students.

State-of-the-art methods of teaching, introduced into curricula in recent years, were formulated, including rotation - in which graduate students are required to take active part in current research, intensive workshops in modern research techniques, and a program enabling students, upon the completion of their first year of graduate studies, to transfer directly to doctoral programs.

4.2.8 Everyman's (Open) University

Development of courses in 1984/85 centered on the computer sciences and the social sciences - especially economics and administration. The University faces difficulties in attracting academic personnel for the development of course material and this slows down the rate of completion of courses.

In 1984/85 the University devoted much attention to instruction. A small support team, spread over the country, was set up to assist new students in adapting to the University's special methods of study and in overcoming difficulties.

Over 1,000 students from all parts of the country participated in two special programs - an academic program for neighborhood activists and the "Kalanit" program for trade union activists; many of them are almost half way through the requirements for the bachelor's degree.

A number of research projects on distance learning were carried out at the University and presented at an international congress on distance learning held in Melbourne, Australia, in August 1985.

In 1984/85 the University entered the "word-processor age" and is now examining the possibilities of exchanging existing printing equipment for a computer printing system. In addition, the University has chosen the computer system which it is to purchase.

4.2.9 Bezalel - Academy of Arts and Design, Jerusalem

In 1984/85 work commenced on adapting the Bezalel building on Mt. Scopus so that as of 1985/86 the Departments of Photography, Gold- & Silversmithing and Environmental Design will start to operate from the new campus. This will be the first stage in the transfer of the entire Academy to its own campus which will house all of its seven departments and two units under one roof.

The exchange of students with similar institutions abroad was strengthened in 1984/85. Projects carried out jointly with industry and public bodies in the areas of industrial design, ceramic design and gold- & silversmithing were fostered.

A traveling exhibit of works by Bezalel students was shown during the year at 20 cultural and youth centers throughout the country, under the auspices of "Omanut La'am" ("Art for the People"). Exhibits were also held by all of the departments in various frameworks. The Animation Unit won international recognition at the Festival in Annecy, France.

Despite budgetary difficulties and cutbacks in teaching posts, the scope of the curriculum was enlarged and inter-departmental activities escalated. Various departments are attempting to revitalize teaching methods.

4.2.10 The Jerusalem Rupin Academy of Music and Dance

The Academy has defined for itself new aims and directions for development, according to Israel's artistic requirements and needs in coming years. Emphasis

was placed on performance - workshops for musical performance, dance and composition. Inter-disciplinary cooperation will therefore be augmented and extra-curricular activities expanded.

The Academy is contemplating the initiation of a summer trimester, expanding summer courses and master classes. As every year, during the 1984/85 academic year a summer course in dance was successfully held in which both Israeli and foreign artists participated. A one-year program for overseas students was adapted in cooperation with the one-year program at the Rothberg School for Overseas Students at the Hebrew University.

The transfer of the Academy to new premises on the Givat Ram campus of the Hebrew University will enable it to expand individual practice facilities and develop activities designed to enlarge horizons in academic fields and in proficiency.

In 1984/85 the Council for Higher Education authorized the Academy and the Hebrew University of Jerusalem to award a joint master's degree in music. The authorization to award the joint M.A.Mus. and the authorization to award the B.Ed.Mus. in the Department of Music Education have given the Academy a renewed drive for academic development.

A number of performances were given during the year, in Israel and abroad, including the appearances of the Academy's Chamber Choir in Germany and Norway and the appearances of the Academy Dance Group in Switzerland.

4.2.11 Jerusalem College of Technology

The areas of specialization of the College are physics/electro-optics, electronics and computer sciences. As of 1984/85 four programs in computer sciences are offered: computer software, administrative data systems, micro-computers and combined computer systems. In addition, there is a science-teaching unit.

Each student combines Jewish studies along with his specialized studies. Each student must complete an independent applied project as an integral part of his

course of studies in preparation for his future professional activity.

Research activities at the College are concentrated in electronics and optical communication, information systems, image-processing, micro-lithography, fiber-optic sensors, command and control, robotics and real-time programming.

Students at the College may also study for a science-teaching certificate.

4.2.12 Shenkar - College of Textile Technology and Fashion

The College trains textile technologists and textile chemists, industrial managers and fashion and textile designers in a four-year program of study leading to a bachelor's degree.

A five-year development program for the College was prepared in 1984/85, including plans for teaching, research, acquisition of equipment and construction.

The five-year plan focuses on adapting study and laboratory programs to the future requirements of industry, including automation and computerization and was discussed in the College's professional committees and was approved by the Board of Governors.

The importance of computerization in design and production was stressed by the establishment of a Center for Computerized Knitting Designs and a computerized center for pattern making and grading. These subjects are part of the curriculum in the technological and design departments.

A laboratory for the development of protective clothing has been set up with advanced equipment for measuring the degree of protection given to the body by the clothing in varying conditions of fire, radiation or heat.

The Staff's involvement in research and development in areas funded by outside sources is increasing. The achievements of the design department were highly praised by authoritative sources in Israel and abroad after presentation of the annual fashion show and the textile design exhibition.

5 THE PGC'S MAIN SPHERES OF ACTIVITY

5.1 Planning and Information

The PGC is involved with multi-year planning of the higher education system as well as current problems with planning aspects.

Utilizing the information it has accumulated, the PGC held extensive discussions on the multi-year planning of the system. 1988 and 1995 were set as the target years for planning.

The following served as the basis for discussions:

- the needs of the State for academically qualified manpower;
- potential students, their numbers and characteristics;
- admission policies of the institutions of higher education;
- academization of new subjects;
- academic, administrative and technical staffs;
- construction and development;
- geographical distribution of institutions of higher education;
- decisions of the Council for Higher Education.

In 1983 the PGC published its "Green Paper" on planning - "The Higher Education System in Israel: Guidelines on the Development of the System and its Planning for 1988 with a First Glance at 1995". This document includes data on the development of the system in the past decade, its current situation and forecasts of student numbers, the needs of the State for academically qualified manpower in various fields, conclusions, decisions and lines of action.

5.1.1 Implementation during the Year

5.1.1.1 Electronics and Computers

According to the forecasts of the PGC's "Green Paper", "The fields of electronics and computers will have first priority in the higher education system. The PGC calls on the universities to expand significantly the faculties and departments

dealing with these fields and to give them highest priority in budget allocations for academic and technical staff positions, equipment and buildings."

In 1984/85 the PGC allocated special resources to institutions teaching electronics and computers: this was despite restricted budgets available to the PGC and obligated the PGC to make further cutbacks in other areas. Allocations were made to the Hebrew University, the Technion, Tel-Aviv University, Bar-Ilan University, Ben-Gurion University and Everyman's (Open) University.

A special program for retraining practical, non-academic, engineers was devised, with the cooperation of the electronics industry and the Ministry of Defense, and will be operated at Tel-Aviv University as of 1985/86.

A special fund was established, together with the electronics industry, to encourage and support young lecturers in preferred engineering subjects.

5.1.1.2 Law

The three existing faculties of law can admit only a small part of those requesting admission. The absorption capacity of these faculties is limited by the problems in attracting suitable academic staff. It is difficult to determine society's and the economy's requirements for lawyers but it is obvious that the supply of graduates is sufficient. The University of Haifa appointed an internal committee to examine the possibilities of opening a faculty of law. However, the PGC is of the opinion that in the coming years there is no need for an additional faculty of law.

5.1.1.3 Teacher Training

Four years ago the Council for Higher Education prepared the groundwork for the academization of teacher training institutions when it adopted the prototype for the "Bachelor of Education" degree, prepared by the permanent sub-committee for academic programs in teacher training colleges.

Six institutions are in the process of academization:

1. Michlala - Jerusalem College for Women - authorized to award the "Bachelor of Education" degree, only for the junior high school level;
2. The Zinman College of Physical Education at the Wingate Institute - authorized to award the "Bachelor of Education" degree for all levels;
3. Levinsky Teachers College - all programs except the music teaching program are licensed but are not yet accredited;
4. The David Yellin Teachers College - authorized to award the "Bachelor of Education" degree for the junior high school level and licensed, but not yet accredited, for other levels;
5. Beit-Berl Teachers Training College - authorized to award the "Bachelor of Education" degree for the junior high school level and licensed, but not yet accredited, for other levels;
6. State Teachers College Seminar Hakibbutzim - licensed, but not yet accredited, for most levels.

Teacher training institutions are funded by the Ministry of Education and Culture. The Ministry has no clear forecasts of future supply of and demand for academically qualified teachers.

5.1.1.4 Training of Teachers for Technological Education in High Schools

There is a growing shortage of teachers for technological subjects. The PGC held a discussion on this problem, following the request made by the Director of "ORT-Israel" to approve ORT's program for the academic training of teachers for technological education.

In June, 1985 the Chairman of the PGC appointed a committee to examine the training of academic teachers for technological education in high schools. This committee presented its report to the Chairman of the PGC. Its principal recommendations are as follows:

1. There should be a program of studies leading to the degree of "Bachelor of Technological Education", according to a prototype model;
2. Existing programs in the institutions of higher education for the training of teachers for technological education should be strengthened;
3. The Ministry of Education and Culture should consider employing students

preparing to become teachers of technological education as part of their practical training;

4. Women should be encouraged to teach technological subjects;
5. The possibility of filling technological education's requirements for personnel depends on wage conditions and the social standing of teachers.

5.1.1.5 Academization of Para-Medical Professions

The academization of para-medical professions - nursing, physiotherapy and occupational therapy - continued in 1984/85. The Ministry of Health, the General Sick Fund, Hadassah Medical Organization and the schools of medicine all favor the gradual academization of these subjects.

The situation at present is as follows:

Nursing - five schools of nursing, within the framework of three different faculties, are authorized to award a bachelor's degree in nursing:

- the Henrietta Szold School of Nursing at the Hebrew University of Jerusalem;
- the Asaf HaRofe Hospital School of Nursing - affiliated with the Henrietta Szold School of Nursing;
- the Kaplan Hospital School of Nursing - affiliated with the Henrietta Szold School of Nursing;
- the Department of Nursing at Tel-Aviv University, which also awards a master's degree;
- the nursing program at the Recanati School at Ben-Gurion University of the Negev.

Physiotherapy - there are two academic programs leading to a bachelor's degree:

- the Department of Physiotherapy at Tel-Aviv University;
- the physiotherapy program at the Recanati School at Ben-Gurion University of the Negev.

Occupational therapy - there are two academic programs leading to a bachelor's degree:

- at the Hebrew University of Jerusalem;
- at Tel-Aviv University.

5.1.1.6 Strengthening Inter-University Cooperation

The PGC's "Green Paper" on planning calls for strengthening inter-university cooperation in the following areas: computers, purchase of equipment, libraries, Perach (Tutorial Project), pre-academic preparatory courses, life science collections, oceanography, entrance examinations, and central registration of students.

Information on cooperation in these areas can be found in the following sections: computers (5.4.1); libraries (5.4.2); Perach (5.5.2); pre-academic preparatory courses (5.6.3); life science collections (5.4.6) and oceanography (5.4.4). In addition, there is inter-university cooperation in other areas.

There has been no significant progress in encouraging joint purchase of equipment, except for computers where there is coordination and utilization of joint purchasing power.

Unified entrance examinations are held by the National Center for Testing and Evaluation.

5.1.1.7 Changes in the Distribution of Students Between the Universities

In its long-term planning, the PGC reached the conclusion that it must strive for changes in the distribution of students between the different universities and fields of study:

a. slowing down of the rate of increase of student numbers in the Faculties of Humanities and Social Sciences at Tel-Aviv University;
b. slowing down of the rate of increase of or even freezing the number of students in the Faculty of Social Sciences at Bar-Ilan University;
c. increasing the number of students at the Technion, particularly in those fields in which there are personnel shortages in the economy;
d. increasing substantially the number of students at Ben-Gurion University of the Negev;

e. increasing the number of students in the Faculties of Humanities and Natural Sciences at the Hebrew University of Jerusalem.

In 1984/85 the following developments took place:

- the number of students at Ben-Gurion University of the Negev increased;
- the number of students at the Technion, and especially in the preferred fields of electrical engineering, computers and science-teaching, increased;
- the number of new students admitted to Tel-Aviv University and Bar-Ilan University decreased;
- the number of students in the Faculty of Social Sciences at Bar-Ilan University decreased.

5.1.1.8 Undergraduate Studies

The PGC, in its long-term planning, determined that by 1995, when the number of students in Israel is expected to reach 85,000, the possibility of establishing undergraduate colleges, for which existing universities would be academically responsible, must be examined.

The PGC held preliminary discussions on the possibility of establishing undergraduate colleges and on Tel-Aviv University's proposal to establish such a college under its academic supervision. Tel-Aviv University's proposal is based on the assumption that a large share of the demand for higher education in coming years will be focused in the center of the country, and directed at Tel-Aviv University in particular. The University's policy favors a limited optimal increase in student numbers.

Finding different, alternative solutions to this problem is a matter for national attention and will be at the center of the PGC's planning work in the years to come.

Another problem requiring attention in coming years is the curriculum in universities and, in particular, the undergraduate curriculum. This problem has several aspects: should general and inter-disciplinary studies be expanded? will the bachelor's degree gradually come to represent "general education"? will teaching methods in the universities change, utilizing modern technologies?

should the length of study for the bachelor's degree change? Answers to all of these questions will have budgetary repercussions and will affect the physical development policy of the system.

5.1.2 Information and Statistics

5.1.2.1 Data Collection and Processing by the Central Bureau of Statistics

Part of the data necessary for the PGC's activities are prepared by its administrative staff, but most statistical data are collected and processed by the Central Bureau of Statistics, commissioned by the PGC.

The PGC's work program includes regular collection of data, periodic activities and one-time, special activities.

Statistical reports were published this year on candidates, students and recipients of degrees in the universities and post-secondary institutions.

The Central Bureau of Statistics collects other data relevant to the planning of higher education, such as data on the educational level of the population, potential demand for higher education and particular fields of study, manpower characteristics, including education and employment, research activities and research manpower.

5.1.2.2 Data on Manpower in the Universities

Following comprehensive surveys on academic, technical and administrative manpower in the universities carried out in the 1978/79 and 1981/82 academic years, two smaller surveys were carried out relating to the 1982/83 and 1983/84 academic years.

Since wages represent the largest single expenditure of the institutions of higher education, these surveys are important for the establishment of a data bank vital for reliable budgeting and efficient planning of higher education.

As opposed to the subjects of previous surveys, the two latest surveys concentrated on one subject - the total active staff (in full-time positions)

employed on a monthly basis in each institution and its classification according to grading scales and budgetary sources. Additional sections of the 1981/82 manpower survey were completed in 1983/84, namely:

- areas of activity of the different units;
- research increments, supplements for special positions and part-time supplements;
- over-time employment;
- employment on an hourly basis;
- employment on a contractural basis;
- sabbatical leave for senior academic staff.

The work program for coming years is based on methodical, annual collection of data on manpower in the institutions of higher education. This will result in a multi-year time-series which will allow for efficient supervision and control and will supply the required quantitative tools necessary for understanding changes in this area.

5.2 The Higher Education Budget

Activities in the institutions of higher education can be classified according to three budgetary frameworks:

- the ordinary budget, which is the source of regular, current activity in the institutions in teaching and research;
- closed budgets, mostly financed from outside sources, for research and special study programs;
- the development budget.

5.2.1 The Ordinary Budget

Most of the expenditures of the institutions of higher education are included in the ordinary budget: wages; purchase of scientific equipment; purchase of books and periodicals; purchase of materials and expendable supplies; routine maintenance; renovations; aid to students, etc.

The PGC approves the budgetary frameworks of the institutions of higher education as a condition for its participation in their budgets. The approved frameworks for the ordinary budgets of the institutions in 1984/85 amounted to IS 301,163 million. Final reports and balance sheets for the institutions are not yet available. (See Appendices 9, 10 and 11).

Details of the income for the ordinary budgets of the institutions of higher education in 1984/85 appear below:

	Amount (IS Millions)	Percentage of Total Budget
Total	301,163	100.0
Direct PGC allocation*	153,075	50.8
PGC's matching allocations to endowment funds	8,820	3.0
PGC's earmarked allocations for research and special subjects	16,944	5.6
Tuition fees and special levy	29,603	9.8
Donations	42,199	14.0
Miscellaneous	50,552	16.8

* including the allocations for the study of electronics and computers

5.2.1.1 The Direct Allocation

The PGC's direct allocation represents the principal component of the budgets of the institutions of higher education. The relative weight of this component in the income of the institutions has decreased in recent years, for three main reasons:

a. a decrease in the real value of the PGC's allocations to the higher education system;
b. an increase in the PGC's earmarked allocations for research and special subjects;
c. an increase in the independent income of the institutions of higher education.

The apportionment of the direct allocation between the institutions is one of the PGC's central decisions each year. This decision takes into account the structure of the system - students, study programs and research - as well as physical data on the institutions and other relevant data. This decision also expresses the PGC's policy to encourage certain preferred subjects in the fields of computers and advanced technologies. An additional factor for consideration is the necessity for balance between total expenditures and income, without affecting adversely the institutions' interest in recruiting additional independent means of income to support and expand their activities.

5.2.1.2 Matching Allocations

Matching allocations are granted in order to encourage the accumulation of donations in endowment funds, the proceeds from which constitute independent income of the institutions of higher education. These allocations had their beginning in "historical obligations" by Ministers of Finance in the period preceding the PGC's establishment.

In recent years, less donations are needed for construction, while at the same time, more are needed for operating expenses. Accordingly, the PGC decided to encourage the accumulation of donations to endowment funds, the proceeds from which are devoted to financing general and specific activities in the current budget of the institutions of higher education. The principal of the fund remains invested.

Beginning with 1982/83 a new method for determining matching allocations was implemented, the main features of which are:

- Funds eligible for matching allocations are endowment funds deriving from donations, the purposes of which are: encouraging research, provision of chairs, recruiting academic staff, purchase of books and periodicals, provision of scholarships and loans to students and maintenance of buildings and installations;
- Funds eligible for matching must be deposited with an Israeli bank or with the Accountant-General and be under the control of the institutions concerned;
- The annual matching allocation is up to 7% of the total value of an institution's funds;

- The institution's income from the fruits of the invested endowment funds and the matching allocations accruing to them must be included in its annual ordinary budget.

The total value of all eligible funds as of the end of 1983/84 (30.9.1984) was IS 123,530 million (about $308 million) and served as the basis for computing the matching allocations for 1984/85. The PGC's matching allocation in 1984/85 is estimated at approximately IS 8,820 million. (See Appendix 12). A sub-committee of the PGC determines policy regarding matching allocations.

In 1983/84 the PGC requested the Ministry of Finance to recognize the importance of encouraging the universities to increase their endowment funds and encouraging the various "Friends" organizations abroad to transfer their funds to Israel. This would reduce the institutions' dependence on government allocations and, at the same time, increase the country's foreign currency reserves. The PGC therefore also requested the Ministry of Finance to appropriate special funds, apart from the higher education budget, for matching allocations to endowment funds. To date, the Ministry of Finance has not agreed to this request.

5.2.1.3 The PGC's Earmarked Allocations for Research and Special Subjects

These include:	IS Millions
- Yigal Allon Fellowships	645
- Scientific equipment	1,990
- Research increments "B"	1,400
- Designated allocations	3,220
- Inter-university cooperation	1,005
- Pre-academic preparatory courses	580
- Academic courses in regional colleges	45
- Accountancy studies	40
- Tax refunds - Everyman's (Open) University	750
- Peripheral hospitals	80
- Other allocations	2,255
- Special, mostly one-time, obligations	4,934
Total estimated implementation	16,944

Specifications of these budgetary items appear in Appendix II. A more detailed discussion appears below.

5.2.1.4 Income from Tuition Fees and Levies

Income from tuition fees and tuition levies represented 9.8% of the ordinary budgets of the universities.

In 1984/85 the Knesset decided to increase income from students in the institutions of higher education by imposing a "temporary tuition levy". This was partially imposed in 1984/85 and will be imposed in full in 1985/86 and 1986/87.

The levy was set at IS 55,000 in 1984/85 and IS 130,000 in 1985/86 and 1986/87 (based on the index published on 15.8.1984).

Lengthy discussions with students preceded the imposition of the levy: beginning in 1983/84, these discussions covered the increase of tuition fees in order to offset erosion (as determined by the Katzav Committee) and in order to raise, in real terms, the proportion of the ordinary budget deriving from tuition fees, according to the Government's new economic policy.

5.2.1.5 Income from Donations

Most donations come from abroad. Direct income from donations from abroad amounted to IS 42,199 million in 1984/85.

This category does not include income from endowment funds and donations to endowment funds.

5.2.1.6 Miscellaneous Income

This includes:

a. income from investments;
b. sale of services, including overhead from other budgets;
c. participation by government ministries and other institutions in operation of special programs such as courses for teachers, para-medical subjects, etc.

5.2.2 PGC Allocations to the Higher Education System

The PGC proposes the necessary budgetary framework for the institutions of higher education to the Government and allocates the budget approved by the Government to the institutions of higher education.

Total PGC allocations in 1984/85, according to estimates of implementation, amounted to IS 186,624 million. This includes the PGC's operating budget of IS 650 million.

The largest part of the budget, as stated above, is the PGC's direct allocation to the ordinary budgets of the institutions of higher education. The remainder is allocated to specific subjects in the universities and to various activities in research and academic development.

According to the Council for Higher Education Law, the institutions of higher education are free to administer their affairs autonomously, within their budgetary frameworks.

The PGC's allocations in 1984/85 (estimates of implementation) were as follows:

	IS Millions	Percentage of Total Budget
Total	186,624	100.0
Direct allocations to the institutions of higher education	148,435	80.0
Allocations for electronics and computers	4,640	
Matching allocations for endowment funds	8,820	4.7
Earmarked allocations for research and other subjects[1]	16,944	9.0
Other allocations[2]	7,135	5.2
PGC's operating budget	650	0.3

1 See Section 5.2.1.3

2 Includes research funds and aid to students (See Appendix 11)

5.2.3 Wages

Expenditures on wages in the institutions of higher education correspond to those in the economy in general. While in previous years the share of total expenditures going to wages in the institutions grew, since the implementation of the Government's new economic program and the emergency economic plan in 1985, this has changed markedly: the share of expenditures on wages has decreased.

In 1984/85 the PGC dealt with the following:

a. An examination of senior academic staff salaries from October 1982 to October 1984, compared to salaries of engineers and humanities and social science graduates in the same period, showed that academic staff salaries lagged behind others by 2.61%. According to the provisions of the 1983 wage agreement, academic staff wages were therefore increased by 2.6% as of January 1985;
b. The agreement concerning the 6% wage concession on the part of the academic staffs, in force since June 1984, called for an examination, in June 1985, of wage erosion. The academic staff coordinating council agreed to postpone this examination for six months and to continue the wage concession during this time. Because of the emergency economic regulations now in force, it is not clear if this examination will, in fact, take place and, if so, when and how. In any case, the examination can only take place in 1985/86 and any results will only be felt after that time;
c. As required by the Government's emergency regulations, a list of employees liable to be dismissed was drawn up, in coordination with the Civil Service Commission's emergency task force.

5.2.4 The Development Budget

5.2.4.1 Construction in the Institutions of Higher Education

In 1984/85, as in the previous year, construction in the institutions of higher education was smaller in scope than in earlier years and relative to the general activity of the institutions: it was confined to a small number of projects.

Some construction was within the framework of the multi-year development plan for 1981/82 - 1987/88 and some was fully financed from donations. The multi-year development plan was agreed upon between the PGC and the institutions of higher education and the PGC and the Ministry of Finance in 1982.

This multi-year plan is intended to encompass 114,000 square meters of construction, which will be financed partly by the PGC. It is composed of projects approved by the PGC from among plans totaling about 300,000 square meters proposed by the institutions. The approved plans represent an increase of about 8% over the present built-up area, or less than 1% a year until the end of the decade.

Projects included in the plan are intended to assist in the development of fields with national priority, such as engineering, especially electrical engineering and electronics, and dentistry, or to alleviate pressing shortages of space.

The PGC's participation in each of the projects is pre-determined according to set tariffs which take into account the urgency of the projects, the total cost of the investment and the resources available from donations. The PGC's participation is usually up to a third of the cost and in special cases may be up to half the cost.

Even projects financed entirely, including maintenance costs, from donations require the PGC's approval. Each request is examined from four aspects: the requirements of the university; the requirements of society and the economy; the total investment involved including maintenance costs and the availability of resources. In 1984/85 the PGC approved a small number of projects of this nature.

The multi-year plan, which was approved in principle by the Ministry of Finance, was based on the assumption that the Israeli Shekel equivalent of about $10 million would be allocated yearly. However, due to budgetary cutbacks, the sum available to the PGC for implementing the multi-year plan in 1984/85 was equivalent to only about $5 million. In 1983/84 and 1982/83 the amount was

also about 30% and 20% respectively less than anticipated. As a result, implementation of the plan was slowed down and some approved projects were postponed.

As part of the multi-year development plan, the PGC also intended to devote resources to participation in renovations and adaptations (beyond routine repairs and maintenance which are financed from the ordinary budget) of ageing buildings and systems and in order to adapt existing structures to changing uses instead of new construction. The PGC's participation in projects of this nature was up to 50% of the cost. In 1982/83 and 1983/84 allocations were made for renovations and adaptations, but in 1984/85, due to restricted resources available to the PGC, no allocations could be made.

5.2.4.2 Finances

Total investment in construction in the higher education system in 1984/85 amounted to approximately IS 30,000 million, of this IS 26,000 million in the universities. The PGC's participation in development budgets amounted to IS 6,100 million, of this IS 5,200 million for the universities, mostly for projects included in the multi-year plan, but also for the completion of participation in projects carried out in previous years (primarily in the Mt. Scopus campus of the Hebrew University of Jerusalem).

Data on actual investments and government participation are presented in Appendix 13.

Investments in construction in the institutions of higher education have been steadily declining in the past decade: in 1984/85 they were only 40% of their value in 1973/74. While at the beginning of the 70's the development budget was about 25% of the total higher education budget, in 1984/85 it was only about 9%.

In this same period the PGC's participation in development budgets of the institutions of higher education diminished even more rapidly. In 1984/85 it was 15% of what it was in 1973/74: at that time PGC participation was about 50% of total investments while in 1984/85 it was only about 18%. In 1973/74

PGC participation in development budgets was about 16% of total PGC participation in higher education budgets but in the year under review the percentage was only 3%.

During this decade changes have occurred in the apportionment of the development budget between the different institutions, both in total investments and PGC participation.

5.3 Encouraging Research and Excellence

The universities are engaged both in teaching and research, two components which are intertwined and cannot be separated since university teaching not accompanied by research cannot ensure a proper academic level for any length of time. Academic staff are active in teaching and research; technological and administrative staffs support both activities. It is customary to assume that half the cost of university activities stems from the teaching component and half from the research component.

About 30% of all research and development in Israel, and 45% of the civilian research and development in the natural sciences, medicine, agriculture and engineering take place in the universities. The majority of research in the humanities and social sciences is carried out in the universities, as is virtually all the basic research in the country.

Research activities in the universities have been particularly affected by budgetary cutbacks in the past decade. Budgets for the operation of academic units, maintenance of scientific equipment and purchase of new equipment have decreased in recent years. Harm done to research activity in the past and the shortage of positions open to young researchers are a stumbling block for future research activity.

Today almost all budgets for research in the universities are dependent on research grants from sources outside the university system, both in Israel and abroad. Since these sources are primarily interested in applied research, the

scope of basic research has been severely curtailed. Apart from the universities, there is almost no other factor involved in basic research to any significant extent. Any damage done to basic research in the universities endangers, in the long run, the scientific and technological infrastructure of the country. It must be remembered that almost all industrial, technological and defense development sprang from seeds that were sown ten or even twenty years earlier in the higher education system. The fields of computers, nuclear physics and chemistry, genetical engineering, electronics and aeronautical engineering in Israel were born in the higher education system. The scientific and technological fields of the year 2000 and the coming century must be born now, in the university system. Their birth will, presumably, be within the framework of basic research, the existence of which is in danger.

This situation can be rectified, principally, by significantly enlarging Israeli government research funds that finance basic research in the universities. The two research funds prominent in this connection are the United States - Israel Bi-National Science Foundation and the Basic Research Foundation. Some basic research is also financed by outside sources, mainly in the US and West Germany. The contributions of these outside sources do, indeed, assist the system, but they sometimes lead to a situation where emphasis is placed on areas which are not necessarily those which Israel would prefer to emphasize. In the past year the PGC considerably increased the Basic Research Foundation, administered by the Israel Academy of Sciences and Humanities. (See below, Section 5.3.3).

Applied research in the universities has increased greatly in recent years, expanding its contribution to industry, agriculture, security, education and other areas of the economy and society. There is a welcome interaction between requests and pressure by various factors in the Government and the economy and appropriate responses on the part of the universities. The financing of research projects by foreign sources is a desirable phenomenon from the point of view of university income. However, the danger of a "knowledge drain" exists as a result of a certain degree of control by the foreign financer over the results of these research projects. The Israeli economy must be given the first opportunity to utilize the knowledge created in the universities.

One of the universities' central missions is to cultivate excellence in their researchers and teachers. The PGC established a number of funds that award grants to individual researchers and research teams in the universities on a competitive basis, thus encouraging excellence. (See below, Sections 5.3.1 and 5.3.2).

In 1984/85 the PGC allocated the equivalent of $2.6 million to funds that finance university research. This amount represents 1.2% of government participation in the higher education budget. (Information on research funds supported by the PGC may be found in Sections 5.3.3 - 5.3.8).

5.3.1 Allocations for Scientific Equipment

In 1984/85 the PGC continued, for the seventh year, to grant special allocations for the purchase of scientific research equipment. The allocation is intended to encourage excellence and maintenance of a high scientific level of research teams including research for the development of new or vital fields of research and the absorption of advanced experimental methods.

The allocation is intended for the purchase of new equipment or the replacement of worn out or outdated equipment, costing at least $25,000 per item or for a particular set of equipment. Requests are presented by the universities according to the requirements of their research teams and their long-range needs. The PGC's participation is 50-100% of the cost of each item. Special committees for each scientific field determine the allocations.

Approximately $1.9 million were allocated for the purchase of scientific equipment costing about $3.7 million.

5.3.2 Yigal Allon Fellowships for Outstanding Young Researchers

These fellowships are intended to provide outstanding young researchers with initial full-time appointments as "lecturer" or "senior lecturer" in a university.

Approximately 20 three-year fellowships are awarded each year, each equivalent to the average salary of a lecturer or senior lecturer. Competition for the fellowships is on a personal and non-institutional basis. The university undertakes to employ the fellow and include his salary in its ordinary budget at the end of the three years.

24 fellowships were awarded this, the seventh year of the Yigal Allon Fellowships: 5 in the humanities, 7 in the social sciences, 9 in the exact sciences and 3 in the life sciences. Approximately IS 645 million were transferred to the universities to cover the expenses of 54 fellows from three different three-year cycles.

5.3.3 The Basic Research Foundation

This foundation is financed entirely by the PGC. It is administered by the Israel Academy of Sciences and Humanities. The Foundation has a council and an administration, including three representatives of the PGC.

565 applications for grants were made in 1984/85, of which approximately 22% were approved (compared to 476 requests, of which 25% were approved, in the previous year).

224 research grants were awarded, about half of them to new research projects and half to continuing projects. (See Appendix 15).

The PGC allocated IS 1,450 million to the foundation in 1984/85.

In accordance with a decision of the foundation's council, as of 1983/84 it also supports three-year research projects. In 1984/85, for the first time, the foundation supports three different "cycles" of projects. In addition, it also awards grants for the purchase of scientific equipment costing less than $25,000.

5.3.4 The Joint Atomic Energy Commission - PGC Research Fund

The purpose of this fund is to encourage cooperation between the AEC and the institutions of higher education and to expand the scientific and technological infrastructure available to the Commission.

This fund operates through a joint administration and a selection committee. Research projects must be in the field of activity of the AEC and must be carried out in institutions of higher education by researchers who have close contact with the AEC.

The PGC's participation in this fund in 1984/85 amounted to IS 110 million.

5.3.5 The Joint PGC - Ministry of Defense Research Fund

The purposes of this fund are:

- expansion of the scientific - technological infrastructure in the universities available to the defense system;
- utilization of scientific potential of the institutions of higher education, where the advancement of the researcher and his institution and the needs of security coincide;
- the fostering and advancement of young researchers or researchers returning from abroad in relevant subjects in the universities, or their retraining for employment in high-tech industries.

A joint administration operates the fund. Research projects are chosen by a professional committee and are carried out by researchers in the universities.

The PGC's participation in the fund in 1984/85 amounted to IS 290 million.

5.3.6 The Fund to Encourage Technological Education in Electronics and Computers

This fund was established in 1983/84 to encourage young lecturers in the fields of electronics and computers to work in the universities despite better financial opportunities open to them in industry. The electronics industry, the PGC and the Ministry of Science are partners to this fund.

The electronics industry's annual contribution to the fund is equivalent to $100 times the number of engineers and computer specialists employed in each factory.

Each new lecturer in electronics or computers joining a university staff receives a special grant equal to $6000 per year for three years.

The fund is administered by a non-profit-making organization whose members include six directors-general of industrial plants and the Chairman of the PGC. Representatives of government ministries are permanent observers at meetings of the administration.

The PGC's contribution to the fund in 1984/85 was $75,000.

5.3.7 The Albert Einstein Fellowship Fund

This fund was established in 1979, the centenary of Albert Einstein's birth, with the aim of bringing prominent scientists from abroad into closer contact with the academic community and the institutions of higher education in Israel. Recipients of fellowships are designated "Einstein Visiting Fellows of the Israel Academy of Sciences and Humanities".

Since 1980/81 the PGC has participated in the fund through the Israel Academy of Sciences and Humanities.

In February 1984 the PGC decided to reduce its participation in the fund to 50% of what it was in 1983/84. The PGC's participation in 1984/85 was, therefore, $25,000, compared to $50,000 in the previous year.

From 1979/80 to 1984/85 31 Einstien Visiting Fellows have come to Israeli institutions of higher education.

5.3.8 The United States - Israel Education Foundation

This fund, also known as the "Fulbright Foundation", is a bi-national fund based on an agreement between the two governments signed in 1956. Each year

the foundation finances visits to Israeli universities by US lecturers, researchers and students and also awards scholarships to Israeli students and post-doctoral researchers who wish to study in the US.

The foundation's annual budget - $650,000 in 1984 - is financed for the most part by the US Government. Since 1967 the Government of Israel participates in the foundation through the Ministry for Foreign Affairs and the PGC.

The PGC's participation in the foundation in 1984/85 was $15,000. (The Ministry for Foreign Affair's participation was $20,000).

5.3.9 Research Increments

Research increments were initiated in 1982/83 in order to expand the scope of university research and to encourage researchers to obtain research grants from outside sources.

The detailed set of rules for the granting of research increments was confirmed by the Committee of Heads of Universities, with the approval of the PGC, the Director of Wages in the Ministry of Finance and the academic staff coordinating committee.

Research increments are paid partly by the outside source financing the research project (research increments "A"), partly by the PGC (research increments "B") and partly by the institutions themselves (research increments "C").

Estimated implementation of research increments in 1984/85 was IS 1,400 million.

5.4 Encouraging Inter-University Cooperation

One of the central tasks of the PGC is to encourage coordination and cooperation between the institutions of higher education. Efficiency in the system and the promotion of subjects particularly affected by budgetary cuts are important in the long-range view of the higher education system.

5.4.1 Computers

The PGC is active in the development of university computing centers and allocates funds to them, within the framework of the multi-year acquisition program recommended by the PGC's Sub-committee for Computers. In 1984 the PGC allocated approximately $1.2 million to university computing centers.

The forum of university computing center directors convened monthly in 1984/85. The forum discusses coordination between computing centers and makes recommendatio to the administration of the Inter-University Computing Center.

The Inter-University Computing Center (IUCC), initiated by the PGC at the end of 1982/83, carries out the policies determined when it was established.

The IUCC's activities in 1984/85 centered on completion of the first stage of deployment of the communication network between university computers (August 1984) and adapting soft-ware for use in the network (electronic mail). The network is part of the European EARN network and, through it, is connected to the BITNET, CSNET and ARPANET networks in the US.

IBM has undertaken to finance the EARN network until 1988. All the universities were connected to the network in 1984/85 and usage rules were drawn up. Thanks to the network, the universities are now connected to each other and to universities in the US and Europe.

The IUCC was able to obtain special rates for the purchase, by the universities, of computer equipment and soft-ware, thus saving resources by utilizing joint purchasing power.

In order to encourage the university administrations to cooperate in the area of administrative information systems, the IUCC conducted a survey of such systems in the universities. Results of the survey were distributed to all concerned.

Estimated expenditures of the IUCC in 1984/85 were about $100,000.

5.4.2 University Libraries

Each year the PGC makes a special allocation for the purchase of books and periodicals by university libraries. Since the allocation is intended to encourage universities to purchase books and periodicals, its amount depends upon the sum each institution devoted to this purpose in the previous year from its own resources.

The PGC's special allocation in 1984/85 was IS 1,507 million. The PGC's Sub-committee for University Libraries determines the distribution of the allocation each year.

In addition to allocations, the Sub-committee dealt with the preparation of the Union List of Serials in Israel. The Hebrew University, with the aid of a special staff, is responsible for managing this project. The Sub-committee also encouraged inter-library loans, which are also coordinated and organized by the Hebrew University of Jerusalem.

IS 80 million were allocated for these two subjects.

Inter-university cooperation was expressed in the establishment of an inter-university library network. This network, which began to operate in 1983/84, inter-connects the library computers. It is based on the Hebrew University's "Aleph" program which was adopted by the other universities. This program allows for cataloging, search and lending in and between each of the university libraries.

A Steering Committee for the Inter-University Library Network was appointed in 1984/85 to promote and encourage the network. The Committee directs the development policy of the "Aleph" program regarding soft-ware and hard-ware, from the librarians' point of view, and supervises the services provided by the "Aleph" staff to the universities.

In 1984/85 the PGC allocated $370,000 for the purchase of a VAX computer and soft-ware and communications work.

5.4.3 The Institute for Desert Research in Sde Boker

In order to encourage the Institute's development as a national center for desert research, the PGC appointed an inter-university academic committee to follow its activities. The committee's functions are to initiate and encourage cooperation between the Institute, which is part of Ben-Gurion University of the Negev, and the institutions of higher education.

Cooperation is in the following fields:

a. research projects carried out jointly by researchers from the Institute and from universities;
b. granting some Institute researchers an additional appointment in another university;
c. holding national and international meetings on desert research within the framework of the International Center for Desert Research established at the Institute;
d. providing courses for students of other universities (within the framework of the above-mentioned Center).

The PGC contributes to the Institute's budget through its direct allocation to the ordinary budget of Ben-Gurion University of the Negev.

5.4.4 The Inter-University Institute in Eilat

In recent years the PGC made special annual allocations to promote oceanography, directed primarily to the Marine Biology Laboratory in Eilat, which was part of the Hebrew University of Jerusalem. In 1983/84 it was decided to establish an Inter-University Institute in Eilat, based on the former Marine Biology Laboratory. In 1984/85 the Laboratory began to operate as the Inter-University Institute.

The Institute is managed by an administrative committee appointed by the Chairman of the PGC after consultation with the Rector of the Hebrew University. University scientists serve as committee members. The committee's functions are to determine the Institute's scientific programs, priorities for the

Institute's work, and development trends. In addition, the Committee determines the curriculum in marine biology for students from all universities, curriculum for summer programs and operating procedures for scientists at the Institute, including possibilities for agreements on cooperation between the Institute and universities and research institutes in Israel and abroad.

The Institute is administered through a closed budget financed by the PGC. The Hebrew University is responsible for the Institute's operation.

In 1984/85 the PGC authorized a special allocation of $550,000 to the Inter-University Institute in Eilat.

5.4.5 The Israeli Academic Center in Cairo

The Israeli Academic Center in Cairo was established in 1981/82 by the Israeli Oriental Society on behalf of the Israel Academy of Sciences and Humanities following a cultural agreement between Israel and Egypt signed in May 1980.

A council and an administration direct the Center's activities. The PGC finances the Center, which is administered by the Israel Academy of Sciences and Humanities.

In 1984/85 the PGC allocated $190,000 to the Center.

Activities of the Center in 1984/85 included the following:

- Israeli researchers visited the Center for research purposes or within the framework of international meetings;
- Students and academic staff from Israeli universities visited the Center while on study trips or attending scientific meetings in Egypt;
- A group of Israeli architects and a group of Israeli agricultural specialists were guests of the Center and established contacts with Egyptian colleagues;
- Egyptian students, lecturers and teachers visited the Center to use its library or receive information, particularly in the field of Judaica;
- Fellowships were awarded to Israeli researchers to enable them to carry out research projects in Egypt;

- Israeli visitors to the Center held series of lectures and seminars on Bible studies and literature;
- Video programs of Israel's Everyman's (Open) University on modern Hebrew literature were shown at the Center;
- The Center publishes a Bulletin containing information on the activities of researchers who visit the Center and research on Egypt carried out by Israeli researchers.

5.4.6 Natural Science Collections

In 1984/85 the PGC allocated IS 60 million for the preservation of existing zoological, botanical and geological collections primarily in the Hebrew University of Jerusalem and Tel-Aviv University, and inter-institution cooperation in this area. The Israel Academy of Sciences and Humanities is responsible for this project, operating through an "Association for National Collections in the Natural Sciences", which is, in fact, a continuation of a PGC committee that was active until March 1984.

Activities in 1984/85 included:

a. Scientific committees were set up for registration and computerization and for organization of educational exhibits and activities;
b. A committee of curators was established;
c. A list of scientists specializing in different zoological and botanical fields was published.

5.5 Tuition Fees and Aid to Students

Students in the higher education system benefit from various forms of assistance during their studies: scholarships and grants, low- or no-interest loans and subsidized services, such as housing, restaurants, health services and sports facilities.

In addition, students are eligible for various other benefits: working students are entitled to reductions in income tax and students employed in the public sector are entitled to a reduction in their work-load.

Aid to students in the institutions of higher education is financed from two main sources: the budgets of the institutions of higher education and the PGC. The PGC's budget for aid to students is directed to loans for tuition fees and to Perach (Tutorial Project) scholarships.

5.5.1 Perach (Tutorial Project)

Perach is a joint project of the Ministry of Education and Culture, the PGC, the universities and the National Union of Students. Students volunteering to devote four hours a week to acting as tutors to school pupils are eligible for scholarships amounting to 50% of their tuition fees and temporary tuition levy.

In 1984/85 12,072 students served as tutors, operating from seven tutorial centers in seven universities and in 364 schools in 94 communities. For more detailed information on Perach see Appendix 16(a) and (b).

The main expenditure of Perach is on scholarships. The PGC financed 10,000 scholarships, about 85% of the total number. The remainder are financed by the universities and from other sources.

In 1984/85 the PGC's allocation to Perach was approximately IS 4,300 million.

The administration of Perach is located in the Weizmann Institute of Science, which provides assistance for the project. A council, appointed by the Minister of Education and Culture, directs the project. The Ministry of Education and Culture also covers Perach's administrative expenses and selects the schools and pupils participating in the project.

In February 1985 the PGC held a discussion on the subject of "Whither Perach?". The PGC reiterated its stand that Perach should adhere to its original goal, namely - tutoring in the school system. Any additional activities should be confined to the school system.

5.5.2 Students Loan Fund

The Students Loan Fund was established in 1964 as a government corporation and,

until 1982, was operated jointly by the Government and six commercial banks.

In 1983 the banks ceased to participate in the financing of loans and since then loans are financed entirely from the higher education budget. Loans are interest-free but are linked to the Consumer Price Index. Repayment begins upon completion of the student's studies. Criteria for eligibility for loans are primarily social.

In 1984/85 7,000 applications for loans from the Fund were made, of which approximately 6,000 were approved, including standing loans for residents of development towns and underprivileged neighborhoods and about 600 grants for students from large families.

Following the cessation of participation in the Fund by the Commercial banks, the PGC held a discussion, in February 1985, on changes necessitated by this move. It decided to strive for the dissolution of the Students Loan Fund and the formation of a new organizational framework for the granting of loans. Criteria and regulations for loans would be determined by a central body appointed by the PGC, and the PGC and the Committee of Heads of Universities would participate in the administration of the new framework. Implementation of loans, including their collection, would be the responsibility of the universities. The total sum to be loaned each year would be determined by the PGC, within the framework of the higher education budget, taking into consideration the level of tuition fees. Deliberations with the universities on this proposal have not yet concluded.

5.6 Other Topics

5.6.1 Foreign Students

The Steering Committee for Foreign Students is composed of representatives of the universities, the Jewish Agency and the PGC. The purpose of the Committee is to encourage a greater number of Jewish students from abroad to come to study in Israeli universities.

The Committee determines policy and guidelines for operating programs aimed at increasing the number of Jewish students in Israeli universities.

In view of the national and Zionist importance of the project, the Jewish Agency allocated $2 million annually to the Steering Committee.

The Committee's budget covers the following:

- recruiting of students abroad;
- scholarships for students;
- direct expenses of the universities;
- housing for students;
- social activities for students from abroad.

The Steering Committee's activities in 1984/85 included the following:

- academic development of special programs for foreign students, in order to offer them a wider variety of courses that meet their special needs;
- development of programs for foreign students in the S. Sapir Regional College of the Negev and Ben-Gurion University of the Negev;
- organization of social guidance for foreign students and expansion of social and cultural activities in order to enrich the students' stay in Israel;
- award of scholarships, based on economic criteria, to students from abroad coming for a semester or an entire year;
- award of scholarships to students studying for graduate degrees;
- advertisements in English, French and Spanish directed at students abroad;
- production of posters and informative publications;
- activities among Jewish students on college campuses in the US;
- promoting connections with US universities, including formulation of agreements aimed at increasing the number of students coming to Israel;
- coordination of efforts by various organizations to recruit students in the US.

In 1984/85 1,159 students from abroad participated in one-year and semester programs in Israel. (See Appendix 17).

5.6.2 Regional Colleges

The regional colleges provide academic courses of study for which universities are responsible academically. The academic responsibility is extended to these courses of study in order to make higher education more accessable to broader segments of the population and is expressed in the following ways:

- the teaching staff is part of the university staff;
- the program of study is determined by the university;
- students are admitted by the university;
- study requirements are the same as those of the university in the same field;
- degrees are granted by the university.

The following regional colleges maintained academic courses in 1984/85:

1. The S. Sapir Regional College of the Negev - academic responsibility of Ben-Gurion University of the Negev;
2. The Emek Yezrael Regional College "Ohel Sarah" - academic responsibility of the University of Haifa; agricultural courses the academic responsibility of the Hebrew University;
3. The Tel-Hai Rodman Regional College - academic responsibility of the University of Haifa;
4. The Alperin Regional College of the Jordan Valley - academic responsibility of Bar-Ilan University;
5. The Menashe Regional College - academic responsibility of Tel-Aviv University - a few courses only;
6. The Municipal College of Eilat - academic responsibility of Ben-Gurion University of the Negev;
7. The Achva College - academic responsibility of Everyman's (Open) University;
8. Ramat Hanegev College - academic responsibility of Everyman's (Open) University.

The regional colleges are funded by the Ministry of Education and Culture and from other sources. The PGC supports the following:

a. assistance with the colleges' overhead and administrative expenses and the salary of the academic coordinator;

b. the fostering of local teaching staff whose primary employment is in the regional college and who will further the interests of the college and the community.

In 1984/85 the PGC allocated IS 45 million to these colleges. A sub-committee of the Council for Higher Education determines the distribution of the allocation.

5.6.3 Pre-Academic Preparatory Courses

The pre-academic preparatory courses are intended to give a "second chance" to young people who lack the matriculation certificate, to prepare them for university admission.

In 1984/85 courses were held in five universities (the Hebrew University, the Technion, Tel-Aviv University, the University of Haifa and Ben-Gurion University of the Negev), four regional colleges (Tel-Hai, Jordan Valley, Ohel Sarah, S. Sapir) and the Beit-Berl College. In addition, a preparatory course was held in the Sharon region, for which Tel-Aviv University was academically responsible, in cooperation with the kibbutz movement. Students live and work in a kibbutz and study three days a week at Kibbutz Shefa'im. A similar course is opening in Haifa.

The PGC covers the tuition costs of students from disadvantaged socio-economic backgrounds who are considered "worthy of advancement", while the Ministry of Education and Culture and the Ministry of Defense cover their living expenses.

The PGC's allocation in 1984/85 was IS 580 million.

2,204 students studied in the pre-academic preparatory courses in the universities in 1984/85, 1,070 of them considered as "worthy of advancement". The total number of students in all the courses was 3,483, of them 2,257 "worthy of advancement". (See Appendix 18).

An academic directorate for the pre-academic preparatory courses, appointed by the Minister of Education and Culture, determines policy and long-range planning.

The Association for the Advancement of Education is responsible for operating the courses. Both the directorate and the Association maintain regular contact with the PGC, the Ministry of Education and Culture and the Ministry of Defense

5.6.4 Peripheral Hospitals

The Chairman of the PGC maintained regular contact with the heads of the Ministry of Health, the directors of peripheral hospitals (i.e., distant from the schools of medicine) and the deans of the schools of medicine in order to strengthen the connections between the peripheral hospitals and the schools of medicine.

The PGC finances, directly, a number of academic appointments in schools of medicine for doctors from the peripheral hospitals. In 1984/85 the allocation for this purpose was approximately IS 80 million.

6 THE PGC AND THE GOVERNMENT AND THE KNESSET (PARLIAMENT)

6.1 The Government

The Government of National Unity was formed in September 1984. During this period the higher education system was on the verge of collapse and the Government was faced with the task of ensuring the continued existence of education, at all levels, and scientific research and development.

The Chairman of the PGC met with the Prime Minister a number of times in order to discuss ways of advancing the higher education system.

In the middle of the 1984/85 academic year the Prime Minister met with the Committee of Heads of Universities, with the participation of the Minister of Finance and the Chairman and Director-General of the PGC. Budgetary problems of the higher education system were raised at this meeting.

The Prime Minister assisted the PGC and the Ministry of Finance to come to an agreement on government allocations for 1984/85 in order to ensure the efficient functioning of the system, in this year as well as in the future.

6.1.1 The Ministry of Education and Culture

The Minister of Education and Culture, who is Chairman of the Council for Higher Education, closely follows the work of the PGC. In regular meetings with the Minister, the Chairman and Director-General of the PGC keep him informed of the work of the PGC and discuss with him matters of policy.

The PGC maintains working contact with various departments of the Ministry of Education and Culture on subjects such as regional colleges, pre-academic preparatory courses, Perach, etc.

6.1.2 The Ministry of Finance

The PGC maintains close contact with the Minister of Finance, his Director-

General, the Budget Department, the Accountant-General's Department and the official in charge of wages. In 1984/85 discussions centered on the following:

- the budget of the higher education system;
- tuition fees in the institutions of higher education;
- the 6% wage concession by the academic staffs;
- the rate of flow of approved budgets;
- endowment funds;
- deficits in the institutions of higher education;
- the financial plight of Ben-Gurion University of the Negev.

The Minister of Finance displayed an understanding of the problems of higher education in a period which is difficult for the economy as a whole, as well as for the higher education system. A pleasant atmosphere prevailed at these meetings, as well as a sincere desire to find a solution to the crisis.

In 1984/85 one meeting of the PGC was devoted to a general discussion, with the participation of the Director of the Budgets Department and members of his staff.

6.1.3 The Ministry of Science and Development

Regular contact was maintained with the Minister of Science and Development and the Director-General of the Ministry. In these meetings research policy was discussed, as well as such proposals as the establishment of a fund for the training of technological manpower in the universities and obtaining donations for the establishment of a fund for basic research in the universities.

In 1984/85 the Ministerial Committee for Science and Technology was re-established in order to deal with subjects connected to the scientific and technological disposition of the country. According to a decision of the Government, the Chairman of the PGC attends meetings of the Ministerial Committee.

The Committee dealt with the following subjects, among others:

a. The Report of the Yiftach Committee which examined the organization and administration of government research. The Ministerial Committee accepted the conclusions reached by the committee. The PGC's position on the report,

submitted in writing to the Minister of Science (Feb. 6, 1985) was as follows:

- The PGC concurs with the committee's recommendations on furthering teaching and research in various scientific and technological fields in the universities;
- The PGC welcomes the committee's recommendation on the establishment of a large basic research fund with an annual budget of $20-30 million, not to be financed from the existing higher education budget;
- The PGC totally rejects the committee's proposal that government and other representatives and observers participate in PGC meetings;

b. Tel-Aviv University's accelerated program of study to train electronics engineers. The Ministerial Committee supports the establishment of this study program and recommends that the Ministry of Finance's Budget Department finance the Government's share in this activity.

6.1.4 The Ministry of Health

Discussions with the Minister of Health and officials of the Ministry centered on subjects common to the health and higher education systems:

- academization of para-medical professions;
- academic affiliation of peripheral hospitals to schools of medicine;
- training of university graduates in the field of health administration.

6.1.5 The Ministry of Economy and Planning

In June 1985 the Economic and Planning Authority of the Ministry published a "Program for the National Economy 1985-1990" that included a chapter on higher education, based on the PGC's "Green Paper", "The Higher Education System in Israel - Guidelines on the Development of the System and its Planning for 1988 with a First Glance at 1995".

The Ministry of Economy and Planning appointed the Chairman and one member of the PGC as members of the "Council for National Planning and Steering of Economic and Social Growth". This Council was established as part of the Government's reorganization program in this field, and was requested to prepare for the Government - in coordination with others involved in planning in the Government,

the economy and in academic fields - recommendations for medium and long range policy in various fields.

6.1.6 The Ministry of Justice

The Attorney-General advises the PGC on the application of the Council for Higher Education Law to the activities of educational institutions in the country in various areas affecting the Ministry and the higher education system.

In discussions and exchanges of letters between the Chairman of the PGC and officials of the Ministry of Justice, the following issues were raised:

- Tel-Aviv University's program of study in real estate assessment;
- taking of credit by the institutions of higher education (the proposed law regarding the freezing of credit for local authorities and other agencies supported by public funds). The PGC is of the opinion that the most efficient method of dealing with the taking of credit by the institutions of higher education is a complete administrative prohibition by the PGC, with close observance of the institutions' activities. The PGC is opposed to legislation in this matter and doubts its effectiveness;
- the study of law at the University of Haifa and a general review of legal studies in the country. Following the establishment of a committee by the University of Haifa to study the possibility of proposing a faculty of law at the University, the PGC decided not to initiate a general review of the subject in 1984/85.

6.1.7 The Ministry of Communications

The Chairman of the PGC met with the Minister of Communications to discuss matters such as the accelerated training of electronics engineers and the inter-university computer communications network.

6.1.8 The State Comptroller's Office

In March 1985 the State Comptroller published his report on five institutions of higher education: Tel-Aviv University (the University's supervision of its corporations); Ben-Gurion University of the Negev (research institutes and

accumulation of deficits); the Technion - IIT (irregularities in construction); the Weizmann Institute of Science (research financed by outside factors, structure of its budget and housing benefits); and Bezalel - Academy of Arts and Design, Jerusalem.

The PGC discussed the report and the institutions were requested to reply directly to the State Comptroller.

6.2 The Knesset and its Committees

In November 1984 the Knesset held a discussion on higher education.

In March 1985 the Knesset debated a number of motions for the agenda regarding disagreements between Jewish and Arab students.

Beginning in 1985 the Knesset dealt with the approval of the bill regarding the temporary tuition levy in the institutions of higher education.

6.2.1 The Education and Culture Committee

In 1984/85 the Knesset Education and Culture Committee dealt with several issues connected to the higher education system. The Committee held a general discussion on the higher education system in which the Chairman of the PGC reviewed the situation of scientific research and teaching in the universities.

The Committee also discussed the following:

- Tuition fees in the universities. The Committee held several discussions on this issue in which representatives of the students, the PGC and others participated. The Committee supported the Katzav Committee's recommendations on tuition fees, with the addition of a special levy;
- Perach scholarships. In January 1985 the Committee recommended that Perach "increase its beneficiaries to include other community projects. These include subjects such as aid to the elderly, to schools, protection of nature and community work";

- Training of teachers of the natural and exact sciences and technology in secondary schools. The Committee appealed to the Ministry of Education and Culture and the PGC to find a solution to the shortage of teachers in these subjects.

6.2.2 The Finance Committee

The Committee held a discussion on the higher education budget as part of its preparations for approving the annual budget of the higher education system.

In addition, in December 1984 the Committee discussed the general problems facing higher education as a result of the serious situation that preceded the opening of the 1984/85 academic year and heavy deficits, particularly in Ben-Gurion University of the Negev.

6.2.3 The Joint Finance - Education and Culture Committee

In May 1985, during its first reading of the bill on the imposition of a temporary tuition levy in the institutions of higher education, the Knesset forwarded the subject for debate to a joint committee of the Finance and Education and Culture Committees. This joint committee held discussions on the bill prior to its approval.

6.2.4 The Joint Education and Culture - Labor and Welfare Committee

This joint committee discussed the integration of practical (non-academic) engineers in the university faculties of engineering, a subject that had previously been discussed in various Knesset committees. The committee praised Tel-Aviv University's agreement to open a special two-year program for the retraining of practical (non-academic) electronics engineers as engineers.

6.2.5 The Public Audit Committee

The Committee discussed the following issues connected to the higher education system: the shortage of engineering and technological manpower in the armed forces; the State Comptroller's report on the Technion; and granting of priority in admission to the Technion to demobilized soldiers.

Appendix 1

Subjects Discussed at Meetings of the Planning and Grants Committee in 1984/85*

1. The budget of the higher education system in 1984/85.
2. Budgetary guidelines for 1985/86.
3. The development budget for 1984/85.
4. The budget and balance sheet of the PGC administration.
5. The travel tax and the fund for scientific contacts.
6. Endowment Funds.
7. Deficits in the ordinary budgets of the universities in 1981/82 - 1983/84.
8. Relations with the Ministry of Finance.
9. The report of the Yiftach Committee that examined the organization and administration of government research.
10. The State Comptroller's Report.
11. Proposed legislation on the credit freeze in local authorities and agencies funded from the State budget.
12. The legal status of the institutions of higher education as corporations.
13. The appointment of an internal committee for the PGC administration.
14. Research increments for the staff of Jerusalem College of Technology.
15. Payments for the research staff at Bezalel - Academy of Arts and Design, Jerusalem.
16. The Bezalel campus on Mt. Scopus.
17. Pension insurance in the institutions of higher education.
18. The situation of Jerusalem College of Technology.
19. The Yigal Allon Fellowships.
20. Allocations for scientific equipment.
21. The recommendations of the sub-committee for computers.
22. The report of the Basic Research Foundation.
23. The Inter-University Institute in Eilat.
24. Undergraduate colleges and the meaning of the bachelor's degree.
25. An undergraduate college at Tel-Aviv University.
26. Directions of development for Perach (Tutorial Project).
27. Perach scholarships for students at teacher training colleges.

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* Not according to any particular order. Budgetary matters were discussed at most meetings.

28. The Students Loan Fund.
29. Topics for planning the higher education system, with special regard to universities and teacher training colleges.
30. Teacher training colleges.
31. The shortage of electronics engineers - discussed at the request of the electronics industry association.
32. The training of teachers for vocational schools.
33. The training of students in the field of electrical engineering.
34. A research fund in electronics.
35. Medical administration - funding of the Tel-Aviv University project.
36. The report of the committee appointed to examine the University of Haifa's request to authorize it to award the Ph.D. in education and political science.
37. The report of the committee appointed to examine Ben-Gurion University of the Negev's request to initiate studies leading to a master's degree in Bible and ancient Near Eastern studies.
38. The report of the committee appointed to examine Ben-Gurion University of the Negev's request for the academization of its program in physiotherapy.
39. The report of the committee appointed to examine the request made by the Hebrew University of Jerusalem and the Jerusalem Rubin Academy of Music and Dance to introduce a joint course of study leading to a master's degree in music.
40. The report of the sub-committee for the appointment of professors in non-university institutions of higher education.
41. The report of the committee appointed to examine Tel-Aviv Unviersity's request to initiate a bachelor's degree program in occupational therapy.
42. The Department of Behavioral Sciences at Ben-Gurion University of the Negev.
43. The request made by the Avni Institute of Drawing and Sculpture for a license to open an institution of higher education.
44. The admission of foreign students to the School for Veterinary Medicine.
45. Medical studies for students from abroad.
46. A proposal to establish a private medical school in Tiberias.
47. Tuition fees for foreign students.

Appendix 2

New Units Opened in the Universities in 1984/85

(After the PGC determined that the opening of the new unit does not require approval by the Council for Higher Education

Tel-Aviv University

- a master's degree program in musical education and the teaching of music;
- a three-year bachelor's degree and certificate program in acting in the Department of Theater Arts;
- a master's degree program in occupational health;
- a program for Police officers within the framework of a general bachelor's degree program;
- an external studies program leading to a certificate in real estate assessment;
- the consolidation of a number of departments into a School of Chemistry.

Bar-Ilan University

- an external studies program leading to a certificate in journalism and communications;
- a program in technology and communications leading to a master's degree in education.

The University of Haifa

- a drama section;
- the transfer of relevant departments to an institute of archaeology;
- the combination of mathematics and computer sciences programs into a new mathematics/computer sciences program;
- a general bachelor's degree department;
- union of the Department for Kibbutz and Cooperative Studies and the Department of Sociology and Anthropology;
- a women's studies program within the framework of the Department of Sociology and Anthropology.

Ben-Gurion University of the Negev

- a joint Ben-Gurion University of the Negev - Boston University master's degree program in business administration;
- a program in accounting within the Department of Economics.

Appendix 3

Subjects Discussed at Meetings of the Council for Higher Education*

1. The report of the committee appointed to examine the University of Haifa's request to authorize it to award the Ph.D. in political sciences.
2. The report of the committee appointed to examine the University of Haifa's request to authorize it to award the Ph.D. in education.
3. The report of the committee appointed to follow the progress of the Department of Photography at Bezalel - Academy of Arts and Design, Jerusalem.
4. The report of the committee appointed to examine the request made by the Hebrew University of Jerusalem and the Jerusalem Rubin Academy of Music and Dance to award a joint master's degree in music.
5. The report of the committee that examined the needs of the State for academically qualified personnel in health administration.
6. Tel-Aviv University's program for the training of practical (non-academic) engineers in electronics to become engineers.
7. The report of the committee appointed to examine Ben-Gurion University of the Negev's request for academization of its program in physiotherapy.
8. The report of the permanent committee for academic programs in teacher training colleges.
9. The report of the committee appointed to examine the request by the State Teachers College "Seminar Hakibbutzim" for a license to open an institution of higher education.
10. The award of the master's degree in the Department of Behavioral Sciences at Ben-Gurion University of the Negev.
11. The report of the sub-committee for the appointment of professors in non-university institutions of higher education.
12. The granting of a license to open an institution of higher education to the Department of Nutrition and Home Economics at the David Yellin Teachers College.
13. The report of the committee appointed to examine Tel-Aviv University's request to open a program of studies leading to a bachelor's degree in occupational therapy.
14. The 11th Annual Report of the Planning and Grants Committee for 1983/84.

* According to the order in which they were brought up for discussion.

Appendix 4

Fields of Study in the Institutions of Higher Education

	Human-ities	Social Sci.	Law	Arts	Social Work	Teacher Training	Math., Natural Sciences	Eng., Tech-nology	Agri-culture	Medicine	Dentistry	Para-Medical Profs.
Hebrew University	+	+	+	+	+	+	+		+	+	+	+
Technion - IIT		+				+	+	+	+	+		
Tel-Aviv University	+	+	+	+	+	+	+	+		+	+	+
Bar-Ilan University	+	+	+	+	+	+	+					
University of Haifa	+	+		+	+	+	+					
Ben-Gurion University	+	+			+	+	+	+		+		+
Weizmann Inst. of Sci.							+					
Everyman's (Open) Univ.	+	+					+					
Bezalel Academy Arts				+								
Jlm. Academy Music				+		+						
Jlm. Coll. Technology						+		+				
Shenkar - Text. & Fash.				+				+				
Ruppin Institute		+										
Coll. of Administration		+										
Teacher Training Colleges						+						

Appendix 5 (A)

Students in Universities, 1969/70-1984/85

	1969/70	1979/80	1982/83	1983/84	1984/85
Total	36,239	57,500	62,365	64,605	65,050
Hebrew University of Jerusalem	12,960	14,770	15,475	16,050	15,785
Technion - IIT	6,100	7,940	8,040	8,270	8,460
Tel-Aviv University	8,250	15,130	17,530	18,390	19,020
Bar-Ilan University	4,356	8,670	9,830	9,970	9,780
University of Haifa	2,839	6,190	6,100	6,465	6,375
Ben-Gurion Univ. of the Negev	1,315	4,300	4,920	4,980	5,130
Weizmann Institute of Science	419	500	470	480	500
Percentages	100.0	100.0	100.0	100.0	100.0
Hebrew University of Jerusalem	35.8	25.7	24.8	24.8	24.3
Technion - IIT	16.8	13.8	12.9	12.8	13.0
Tel-Aviv University	22.8	26.3	28.1	28.5	29.2
Bar-Ilan University	12.0	15.1	15.8	15.4	15.0
University of Haifa	7.8	10.7	9.8	10.0	9.8
Ben-Gurion Univ. of the Negev	3.6	7.5	7.9	7.7	7.9
Weizmann Institute of Science	1.2	0.9	0.7	0.8	0.8

Appendix 5 (B)

Students in Non-University Institutions of Higher Education - 1982/83 - 1984/85

	1982/83	1983/84	1984/85
Total	1,518	1,621	1,848
Bezalel - Academy of Arts & Design, Jlm.	584	616	633
Jerusalem Rubin Academy of Music & Dance	368	305	392
Jerusalem College of Technology	168	215	280
Shenkar - College of Textile Technology & Fashion	271	308	324
Ruppin Institute of Agriculture (academic course only - two-year course)	127	177	219

Source: Central Bureau of Statistics

Appendix 6

Students in Universities by Level of Study - 1984/85

	Total	Bachelor's Degree	Master's Degree	Ph.D.	Certificate	Special Program
Total	65,050	44,355	12,765	3,215	820	3,895
Hebrew University of Jerusalem	15,785	9,070	3,840	1,300	175	1,400
Technion - IIT	8,460	6,000	1,640	360	60	400
Tel-Aviv University	19,020	12,975	4,120	750	175	1,000
Bar-Ilan University	9,780	6,800	1,550	300	130	1,000
University of Haifa	6,375	5,410	715	25	180	45
Ben-Gurion Univ. of the Negev	5,130	4,100	720	160	100	50
Weizmann Institute of Science	500	-	180	320	-	-
Percentages	100.0	100.0	100.0	100.0	100.0	100.0
Hebrew University of Jerusalem	24.3	20.5	30.1	40.4	21.3	35.9
Technion - IIT	13.0	13.5	12.9	11.2	7.3	10.3
Tel-Aviv University	29.2	29.3	32.3	23.3	21.3	25.7
Bar-Ilan University	15.0	15.3	12.1	9.3	15.9	25.7
University of Haifa	9.8	12.2	5.6	0.8	22.0	1.1
Ben-Gurion Univ. of the Negev	7.9	9.2	5.6	5.0	12.2	1.3
Weizmann Institute of Science	0.8	-	1.4	10.0	-	-

Source: Central Bureau of Statistics

Appendix 7 (A)

Recipients of Degrees in Universities - 1969/70 - 1983/84

	1969/70	1979/80	1982/83	1983/84 Total	1983/84 Bachelor's Degree	1983/84 Master's Degree	1983/84 Ph.D.	1983/84 Certificate
Total	5,666	9,371	9,890	10,654	7,746	1,967	304	637*
Hebrew University of Jerusalem	2,622	2,396	2,798	2,893	1,899	686	139	169
Technion - IIT	1,032	1,347	1,335	1,343	1,004	53	273	12
Tel-Aviv University	1,203	2,452	2,436	2,854	2,005	587	48	214
Bar-Ilan University	423	1,265	1,363	1,495	1,220	153	18	104
University of Haifa	187	1,015	1,090	1,136	943	90	18	103
Ben-Gurion Univ. of the Negev	23	775	747	837	675	115	12	35
Weizmann Institute of Science	76	121	121	97	-	63	34	-
Jewish Studies & Humanities	1,804	2,741	2,543	3,201	2,198	325	63	615
Social Sciences	978	2,808	2,922	2,836	2,252	539	27	18
Law	364	301	387	372	362	9	1	-
Medicine & Paramedical Professions	179	459	710	871	422	444	5	-
Natural Sciences & Mathematics	1,219	1,342	1,464	1,528	1,017	350	157	4
Agriculture	151	231	381	355	274	69	12	-
Engineering & Architecture	871	1,489	1,483	1,491	1,221	231	39	-

* In addition, 336 certificates were awarded to recipients of degrees.

Appendix 7 (B)

Recipients of Degrees in Non-University
Institutions of Higher Education - 1982/83, 1983/84

	1982/83	1983/84
Bezalel - Academy of Arts & Design, Jerusalem	97	134
Jerusalem Rubin Academy of Music & Dance	39	44
Jerusalem College of Technology	30	19
Shenkar - College of Textile Technology and Fashion*	18	86
Ruppin Institute of Agriculture (academic course only)*	30	52

* Degrees are awarded only every two years.

Source: Central Bureau of Statistics

Appendix 8 (A)

Active University Staffs - Annual Average 1982/83

(Full-Time Positions)

	All the Universities	The Hebrew University of Jerusalem	Technion - IIT	Tel-Aviv University	Bar-Ilan University	University of Haifa	Ben-Gurion University of the Negev	Weizmann Institute of Science
Total Staff	18,322.1	5,622.5	2,975.6	4,124.7	1,443.2	894.8	1,515.9	1,745.4
Teaching & Research Staff - Total	8,208.0	2,413.9	1,261.4	2,235.7	732.9	482.6	698.6	382.8
Senior Academic Staff	4,581.8	1,348.1	671.7	1,034.6	442.8	308.0	434.2	342.4
Junior Academic Staff	1,680.7	499.6	243.5	407.4	238.8	58.5	232.9	-
Medical Doctors	46.3	-	-	46.3	-	-	-	-
Teachers	164.1	49.8	-	51.7	-	41.5	2.9	18.2
Teaching & Research Assts.	1,554.7	516.4	345.1	555.4	51.3	58.1	28.4	-
External Teachers	-	-	-	-	-	-	-	-
Other Research & Teaching Staff	180.4	-	1.2	140.3	-	16.5	0.2	22.2
Technical Staff - Total	3,377.4	771.6	869.4	456.2	100.8	38.4	262.0	879.0
Administrative Staff - Total	6,736.7	2,437.0	844.7	1,432.8	609.5	373.8	555.3	483.6

Notes:

a. Only active staff employed on a monthly basis. (Does not include pensioners, those employed on a daily or contractural basis, etc.)

b. Data on the staff of Ben-Gurion University of the Negev do not include the Research and Development Authority.

Appendix 8 (8)

Active University Staffs - Annual Average 1983/84

(Full-Time Positions)

	All the Universities	The Hebrew University of Jerusalem	Technion - IIT	Tel-Aviv University	Bar-Ilan University	University of Haifa	Ben-Gurion University of the Negev	Weizmann Institute of Science
Total Staff	18,164.3	5,432.4	3,017.4	4,141.3	1,436.4	865.8	1,543.8	1,727.2
Teaching & Research Staff - Total	8,248.2	2,341.4	1,320.5	2,285.7	723.1	466.5	732.4	378.6
Senior Academic Staff	4,417.6	1,291.2	698.2	951.7	456.5	296.0	380.3	343.7
Junior Academic Staff	1,459.9	450.9	244.4	336.8	229.7	57.4	140.1	-
Medical Doctors	47.3	-	-	47.3	-	-	-	-
Teachers	156.9	46.3	-	54.0	-	37.3	0.3	19.0
Teaching & Research Assts.	1,510.6	478.3	376.0	557.2	36.9	50.7	11.5	-
External Teachers	478.9	74.7	-	190.8	-	13.2	200.2	-
Other Research & Teaching Staff	177.6	-	1.9	147.9	-	11.9	-	15.9
Technical Staff - Total	3,311.5	748.5	852.6	451.2	100.9	40.2	250.7	867.4
Administrative Staff - Total	6,604.6	2,342.5	844.3	1,404.4	612.4	359.1	560.7	481.2

Notes:

a. Only active staff employed on a monthly basis. (Does not include pensioners, those employed on a daily or contractural basis, etc.)
b. Data on the staff of Ben-Gurion University of the Negev do not include the Research and Development Authority.

Appendix 8 (C)

Staff in Non-University Institutions
of Higher Education - 1983/84

(Full-Time Positions)

Institution	Total	Academic Staff	Administrative and Technical Staff
Bezalel - Academy of Arts and Design, Jerusalem	161	83	78
Jerusalem Rubin Academy of Music and Dance	89	68	21
Jerusalem College of Technology	66	33	33
Shenkar - College of Textile Technology & Fashion	96	42	54
Ruppin Institute of Agriculture (academic course only)	24	17	7

Source: Central Bureau of Statistics

Appendix 9

The Ordinary Budget of the Universities - 1983/84, 1984/85

(IS Millions)

1983/84	Approved Budget	PGC's Allo-cation	Fees from Students	Dona-tions	Other Sources
Total	85,936	35,595	3,917	5,685	40,739
Hebrew University of Jerusalem	20,776	9,770	970	1,404	8,632
Technion - IIT	12,582	6,050	382	687	5,463
Tel-Aviv University	18,701	7,830	1,278	687	8,906
Bar-Ilan University	7,112	3,010	480	117	3,505
University of Haifa	4,990	1,905	230	196	2,659
Ben-Gurion Univ. of the Negev	11,959	3,330	297	326	8,006
Weizmann Institute of Science	8,392	3,120	-	1,943	3,329
Everyman's (Open) University	1,424	580	280	325	239
1984/85					
Total	292,924	148,602	28,600	41,460	74,262
Hebrew University of Jerusalem	70,380	39,660	6,350	9,400	14,970
Technion - IIT	48,530	26,830	3,200	10,700	7,800
Tel-Aviv University	62,450	31,200	8,750	2,820	19,680
Bar-Ilan University	23,380	12,650	3,400	1,400	5,930
University of Haifa	15,700	7,530	2,800	740	4,630
Ben-Gurion Univ. of the Negev	27,970	14,620	2,400	3,500	7,450
Weizmann Institute of Science	37,760	13,360	-	11,600	12,800
Everyman's (Open) University	6,754	2,752	1,700	1,300	1,002

Notes:

a. Data for 1983/84 - according to the balance sheets of the institutions.
b. Data for 1984/85 - approved budget at final, updated, prices.
c. The PGC's allocation includes allocations for electronics and computers.
d. Income from tuition fees in 1984/85 includes the temporary tuition levy.
e. "Other Sources" includes income from endowment funds, other PGC allocations and deficit financing (in 1983/84).

Appendix 10

The Ordinary Budget of the Non-University Institutions of Higher Education - 1983/84, 1984/85

(IS Millions, at Current Prices)

1983/84	Approved Budget	PGC's Allo-cations	Fees from Students	Dona-tions	Other Sources
Total	1,718.5	1,022.5	125.0	146.6	424.4
Bezalel - Academy of Arts and Design, Jerusalem	520.4	440.0	50.0	16.4	14.0
Jerusalem Rubin Academy of Music and Dance	314.6	180.0	23.0	8.0	103.6
Jerusalem College of Technology	489.5	130.0	15.0	119.2	225.3
Shenkar - College of Textile Technology and Fashion	336.0	260.0	15.0	3.0	58.0
Ruppin Institute of Agriculture (academic course only)	58,0	12.5	22.0	-	23.5
1984/85					
Total	8,239	4,473	1,003	739	2,024
Bezalel - Academy of Arts and Design, Jerusalem	3,175	1,848	338	158	831
Jerusalem Rubin Academy of Music and Dance	1,233	698	226	-	309
Jerusalem College of Technology	1,993	835	164	564	430
Shenkar - College of Textile Technology and Fashion	1,468	1,042	175	17.0	234
Ruppin Institute of Agriculture (academic course only)	370	50	100	-	220

Notes:

a. Data for 1983/84 - according to the balance sheets of the institutions.
b. Data for 1984/85 - approved budget at final, updated, prices.
c. Income from tuition fees in 1984/85 includes the temporary tuition levy.
d. "Other Sources" includes deficits. Balance figures do not include deficits acquired because of the total activity of the institutions.
e. "Other Sources" for Bezalel includes retroactive wage payments.
f. The PGC's allocation for the Ruppin Institute will be paid at the beginning of the academic year.

Appendix 11

Implementation of PGC Allocations to the Higher Education System - 1984/85

(IS Millions, at Current Prices)

Total	186,624
1. Direct Allocations	153,075
1.1 Universities	143,962
1.2 Allocation for electronics and computers	4,640
1.3 Non-university institutions	4,473
2. Special Obligations (mostly one-time)	4,934
3. Matching Allocations to Endowment Funds	8,820
3.1 Universities	8,780
3.2 Non-university institutions	40
4. Allocations for Research	5,980
4.1 Allon Fellowships	645
4.2 Scientific Equipment	1,990
*4.3 Basic Research Foundation	1,450
*4.4 Joint PGC-Ministry of Defense Research Fund	290
*4.5 Joint Atomic Energy Commission-PGC Research Fund	110
*4.6 Fund to Encourage Technological Education in Electronics and Computers	70
*4.7 Einstein Fund	15
*4.8 USA-Israel Education Foundation	10
4.9 Research increments "B"	1,400
5. Earmarked Allocations	3,220
5.1 Computer centers	1,290
5.2 Purchase of books and periodicals	1,510
5.3 Special program in electronics at Tel-Aviv University	420
6. Inter-University Activities	1,005
6.1 Inter-University Computing Center (IUCC)	200
6.2 Inter-library cooperation and "Aleph" program	500
6.3 Inter-university center in Eilat	305
7. Aid to Students	5,075
*7.1 Perach (Tutorial Project) scholarships	4,300
*7.2 Students Loan Fund	775
8. Other Subjects	3,865
8.1 Pre-academic preparatory courses	580
8.2 Academic programs in regional colleges	45
8.3 Teaching of accountancy	40
8.4 Tax refund - Everyman's (Open) University	750
*8.5 Israeli Academic Center in Cairo	115
8.6 Clinical appointments in peripheral hospitals	80
8.7 Other allocations	2,255
9. PGC's Administrative Budget	650

* Allocations not transferred directly to the universities.

Appendix 12

Matching Allocations to Endowment Funds - 1984/85

(IS Millions)

	Value of the Funds 30.9.84*	Matching Allocation 1984/85
Total	123,529	8,820
Hebrew University of Jerusalem	45,739	3,200
Technion - IIT	20,541	1,620
Tel-Aviv University	20,923	1,465
Bar-Ilan University	7,335	510
University of Haifa	3,458	242
Ben-Gurion University of the Negev	7,354	510
Weizmann Institute of Science	17,427	1,220
Everyman's (Open) University	88	6
Bezalel - Academy of Arts & Design, Jerusalem	132	9
Jerusalem Rubin Academy of Music & Dance	140	10
Jerusalem College of Technology	341	24
Shenkar - College of Textile Technology and Fashion	51	4

* On 30.9.1984 US$1 = IS 401.34

Appendix 13

Development Budgets of the Universities - 1983/84, 1984/85

(IS Millions, at Current Prices)

	1983/84		1984/85	
	Actual Investments	PGC Allocation	Estimated Investments	PGC Allocation
Total	6,527.0	1,358.3	26,300.0	5,159.3
Hebrew University of Jerusalem - Total	1,569.0	423.8	5,000.0	1,599.3
(Mt. Scopus alone)	(276.0)	(295.8)	(-)	(1,599.3)
Technion - IIT	1,700.0	179.0	7,000.0	365.0
Tel-Aviv University	870.0	224.0	3,500.0	1,300.0
Bar-Ilan University	939.0	241.0	4,000.0	420.0
University of Haifa	194.0	22.5	800.0	-
Ben-Gurion University of the Negev - Total	834.0	228.0	4,000.0	1,475.0
(Institute for Desert Research alone)	(55.0)	(45.0)	(200.0)	(141.6)
Weizmann Institute of Science	421.0	40.0	2,000.0	-

Notes:

a. Source of data for actual investments - financial reports of the universities, including construction, installations and furniture in new buildings. Does not include basic scientific equipment financed from the ordinary budget.
b. The Mt. Scopus campus of the Hebrew University and the Institute for Desert Research have been defined as projects of special national importance. Government participation in the Mt. Scopus project includes allocations not from the State budget.
c. Actual investments at the Technion are after deduction of estimated commitments pending.

Appendix 14

The Development Budget - 1973/74 - 1984/85

(IS Millions)

	At Current Prices		At 1984/85 Prices	
	Investments	PGC Allocation	Investments	PGC Allocation
1973/74	26.0	13.0	67,240.0	33,440.0
1974/75	31.3	14.1	59,280.0	26,680.0
1975/76	28.5	8.7	42,960.0	13,180.0
1976/77	31.6	12.8	37,090.0	15,110.0
1977/78	50.8	16.7	38,270.0	12,840.0
1978/79	75.8	17.0	33,280.0	7,410.0
1979/80	166.0	44.5	32,770.0	8,770.0
1980/81	393.4	84.3	32,950.0	7,050.0
1981/82	767.5	180.7	30,300.0	7,130.0
1982/83	1,833.8	337.1	32,270.0	5,930.0
1983/84	6,527.0	1,358.3	28,650.0	5,964.0
1984/85	26,300.0	5,159.3	26,300.0	5,159.0

Notes:

a. Including Everyman's (Open) University. Does not include the non-university institutions of higher education.
b. The development budget for 1973/74 is an estimate based on an average of fiscal years 1973 and 1974.
c. Government participation does not include standing loans turned into grants in 1972-1975.
d. Government participation in 1975/76-1977/78 included a special allocation for the payment of loans for past government obligations.
e. Government participation in 1978/78-1984/85 included allocations from outside the State budget for the Mts. Scopus project.
f. 1984/85 prices based on the Construction Price Input Index.

Appendix 15

Grants from the Basic Research Foundation - 1984/85

New Grants	Number of Applications	Number Approved	% Applications Approved	Total Grants*	Average Grant*
Total	565	123	22	204.7	1.7
Exact Sciences	145	30	21	58.3	1.9
Life Sciences	242	45	19	93.0	2.1
Applied Infrastructure	52	6	12	13.0	2.2
Humanities & Social Sciences	126	42	33	40.4	1.0

Continuing Grants	Number of Grants	Total Grants*	Average Grant*
Total	101	195.4	1.9
Exact Sciences	25	54.2	2.2
Life Sciences	46	104.9	2.3
Applied Infrastructure	4	9.6	2.4
Humanities & Social Sciences	26	26.7	1.0

* IS Millions, January 1984 prices

Source: The Basic Research

Appendix 16 (A)

Perach (Tutorial Project) Activity - 1984/85

	Coordinators	Schools	Communities	Tutors
Total	261	364	94	12,072
Hebrew University	41	45	2	1,914
Faculty of Agriculture*	15	22	11	702
Technion - IIT	46	67	15	2,004
Tel-Aviv University	40	43	11	1,737
Bar-Ilan University	34	53	18	1,599
University of Haifa	38	70	22	1,822
Ben-Gurion University	46	61	14	2,234
Weizmann Inst. of Science	1	3	1	60

* Considered separately from the Hebrew University for purposes of Perach.

Appendix 16 (B)

Perach Tutors in Universities 1976/77 - 1984/85

	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Total	880	2,250	2,720	4,030	5,858	5,987	8,070	10,622	12,072
Hebrew University	250	350	430	500	855	906	1,250	1,747	1,914
Faculty of Agriculture*	50	60	40	140	289	316	450	497	702
Technion - IIT	-	250	220	320	467	595	900	1,711	2,004
Tel-Aviv University	100	250	250	300	491	560	900	1,302	1,737
Bar-Ilan University	130	250	390	700	925	1,030	1,300	1,578	1,599
University of Haifa	-	350	400	650	1,002	856	1,300	1,717	1,822
Ben-Gurion University	300	700	950	1,350	1,709	1,600	1,900	2,010	2,234
Weizmann Inst. of Science	50	40	40	70	120	124	70**	60	60

* Considered separately from the Hebrew University for purposes of Perach.

** In 1982/83 half of the tutors for which the coordinator from the Weizmann Inst. was responsible were transfered to the responsibility of coordinators of the Faculty of Agriculture in Rehovot.

Source: Perach Administration

Appendix 17

Foreign Students in Universities - 1983/84, 1984/85

One-Year or One-Semester Programs

	1983/84				1984/84			
	Semester A	Semester B	Entire Year	Total	Semester A	Semester B	Entire Year	Total
Total	217	272	763	1,201	189	341	629	1,159
Hebrew University	77	111	497	685	59	111	438	608
Tel-Aviv University	85	66	161	312	48	175	83	306
Bar-Ilan University	-	-	80	80	-	-	83	83
University of Haifa	55	95	25	124	28	55	25	108
Ben-Gurion University	-	-	-	-	54	-	-	54

Source: Steering Committee for Foreign Students

Note: In addition, 178 foreign students studied for advanced degrees (104 for the master's degree and 74 for the Ph.D.).

Appendix 18

Students in Pre-Academic Preparatory Courses - 1984/85

	Total Students	Considered "Worthy of Advancement"
Total	3,483	2,257 - 65%
At the Universities	2,204	1,070 - 49%
Hebrew University of Jerusalem	408	287
Technion - IIT	648	140
Tel-Aviv University	478	302
University of Haifa	353	204
Ben-Gurion University of the Negev	317	137
At the Regional Colleges	1,279	1,187 - 93%
Tel-Hai	234	209
Jordan Valley	228	203
Ohel Sarah	271	259
Sha'ar Hanegev	381	360
Beit Berl	165	156

Note Data are for the beginning of the 1984/85 academic year.

Source: Association for the Advancement of Education

THE CHAIRMAN'S SUMMARY OF THE PLANNING AND GRANTS COMMITTEE'S ACTIVITES 1979 - 1985

The Planning and Grants Committee

The Planning and Grants Committee of the Council for Higher Education was established 12 years ago on the model of the British University Grants Committee (UGC). The PGC is not subordinate to any government ministry and its decisions, in those matters delegated to it by the Government, are completely independent. The Government, in the PGC's terms of reference, defined it as "an independent body, coming between the Government and the national institutions, on the one hand, and the institutions of higher education on the other". As a result, the PGC is neither a government body nor a university body. It must present its views on higher education to the Government and the public, forcefully and resolutely. It must also present and clarify to the institutions of higher education the policies, requests and requirements of the Government and the Knesset (Parliament).

Composition of the PGC

The key to the personal composition of the PGC ensures the necessary conditions for fulfilling its role and for a comprehensive and balanced view of the subjects brought before it. The PGC is composed of six members, including its chairman: four professors from the universities, who must not hold any administrative or financial office in their universities while serving as members of the PGC, and two public figures from the business or industrial sectors of the economy. The four professors represent "the two cultures": two from the humanities, social sciences, law or education; two from the natural sciences, engineering, medicine or agriculture. During the twelve years of the PGC's existence, all of its members have overcome any institutional bias. Only someone who has participated in PGC discussions relating to this or that institution can appreciate the objectivity of its members. Only an institution, one of whose teachers or researchers serves on the Committee, knows for certain that it does not enjoy any advantage whatsoever because of that membership - it cannot view that particular PGC member as its own "representative" or "delegate".

The Status of the PGC

The PGC's central position in higher education is evident in the confidence in which it is held by the heads of the universities (at least the large majority of them), in the confidence in which it is held by all the ministers of finance and senior officials of the Ministry of Finance, and in the total support and backing given to it by all the ministers of education and culture. In the dozen years of its existence, the PGC has been an active partner in every discussion and decision regarding higher education - whether with the Prime Minister, the Minister of Finance, the Minister of Education and Culture, committees of the Knesset, ministerial committees and even those within the Cabinet itself. Thus the PGC's standing as an independent, non-political State body, giving voice to its views in all government frameworks and acting as a buffer and arbitrator between the Government and the universities, was recognized. In the future also the PGC will have to continue to guard zealously the obligations and rights deriving from its special status.

The PGC's authority in the allocation of the higher education budget to the higher education system is, essentially, unlimited. Whoever has unlimited authority must limit himself. In all the years of its existence, the PGC has refrained, again and again, from dictating its wishes to the institutions of higher education. Guidelines were drawn up for certain subjects, discussions in other subjects led to agreement, and in still other subjects there was disagreement. There were many instances of university administrations requesting the PGC to compel them to take a certain step. In general, the PGC refused to do so, in view of the principle of university autonomy within its budgetary framework. In special cases such as wage agreements, tuition fees, construction programs or the opening of new units, the institutions of higher education and the PGC agreed that the PGC's approval was required. In other subjects a dialogue was maintained, with the PGC cautiously utilizing the proverbial carrot and stick.

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The First Six Years 1973-1979

In the first six years of its existence (1973-1979) the PGC laid the foundations for regular planning of the higher education system; ended the random method of apportioning allocations to the universities that prevailed previously; introduced a process of planning and control for university construction; supervised the liquidation of deficits that had accumulated during the years of rapid and uncontrolled development; built an initial data-base covering several important facets of the university system; accompanied the system during six years of severe budgetary cutbacks and managed to earn the trust and esteem of both the government and the university systems. The founding fathers of the PGC also managed to instill an atmosphere of economy and efficiency in the work of the PGC, with a staff of less than twenty fulfilling a long list of tasks and functions.

At the beginning of December 1979 Prof. Nathan Rotenstreich completed his six year term of office as first Chairman of the PGC. During those six years he built and created, together with the other members of the PGC and the first Director-General, Gedalia Yaakoby and the PGC staff, a public body unique in Israel or anywhere else.

The present survey of the PGC's activities covers the six years commencing in December 1979 and ending with the publication of this report in November 1985. Everything accomplished by the PGC in these years rests upon the firm foundations laid by Nathan Rotenstreich, Gedalia Yaakoby and their colleagues during the first six years.

* * *

The Six Year Period 1979-1985

The six-year period we are completing just now was difficult and stormy, both for the PGC and the higher education system. The universities faced more crises in this period than in any other period since the establishment of the State. Time and again we faced a genuine threat to the continued activity of the system and many days were spent in efforts to prevent attempts to harm the strength and quality of higher education. The PGC did not always succeed in preventing these blows. It

is still too early to decide whether to praise the PGC for its strong stand in the front line of the long and hard struggle, or to criticize it for not succeeding in preventing the deterioration completely.

Students, Staff

The general balance of the six years can be summed up on a few figures, some encouraging and some disturbing. The total number of students in the universities and other institutions of higher education funded by the PGC increased from about 60,000 in 1978/79 to 70,000 in 1984/85, corresponding to the population increase in the appropriate age-group. This represented an increase of approximately 15% in the number of students in six years. However, in contrast with this impressive increase, the number of university employees increased in the same period by only about 3%. Initial data for 1984/85 point to a decline in the number of staff compared with 1983/84. A survey for the entire six years may, therefore, show only a very slight change in the number of staff, with a modest increase in academic staff numbers and a decrease in the administrative and technical staffs. The student/teacher ratio worsened by about 15% in this period and the additional 10,000 students were admitted without any significant increase in the numbers of teachers, researchers, technicians or administrative staff.

Tuition Fees

In this period tuition fees rose from the equivalent of US$ 400 in 1979/80 to more than $900 in 1985/86. (Due to the linkage of tuition fees to the Consumer Price Index and the freezing of the exchange rate of the dollar, tuition fees in the beginning of 1985/86 reached $1150. However, the burden on students this year will be lightened somewhat by delaying some of the payments). The number of students participating in Perach (Tutorial Project) rose from about 4,000 in 1979/80, when the amount of the scholarship given to participants was equivalent to $240, to 12,000 in 1985/86, when it was equivalent to $420.

Endowment Funds

One important gleam of light in this period was the impressive increase in endowment funds available to the universities. These funds stem solely from contributions. According to agreements with the benefactors, the universities may use the interest accruing to the funds but not the principal. The funds are in perpetuity and the annual interest is available to the university for its purposes. The total amount of money invested in endowment funds in Israel was about $120 million at the beginning of 1979/80 and reached about $350 million at the beginning of 1985/86. Based on an annual interest rate of 6%, the amount of money available to the universities each year from endowment funds increased from about $7 million in 1979/80 to about $21 million in 1985/86. The PGC encourages the accumulation of endowment funds but this is the task of the university administrations: their significant achievements are worthy of praise.

Income from Independent Sources and the Government

The increase in income from tuition fees and endowment funds amounts to about $40 million. Direct contributions to the universities' operating budgets also increased. The total annual increase in independent income of the universities in the past six years is estimated at about $50 million. If the Government had preserved the real value of its allocations to the institutions, these $50 million would have enabled the institutions to admit the additional ten thousand students while maintaining the quality of scientific equipment and keeping it up-to-date, and maintaining buildings and equipment properly. But such was not the case: the Government decreased its allocation to higher education significantly. In terms of dollars, the government allocation in 1979 and 1980 was between $260-270 million. As of 1981 and 1982 wage increments are paid to members of the academic staffs, following an arbitration ruling and a court decision. The Government covered about 77% of the cost of these increments, increasing its allocation to more than $290 million a year. (In fact, some of this amount, for 1981, was paid only in 1982). Since then the government allocation decreased drastically. In 1985, after the allocations had reached their lowest level and began to increase slightly, they were only about $230 million, that is, a decrease of

$60 million in three years. In terms of the Consumer Price Index the allocations decreased by about 12% from 1979-1984, while the average wage in the country increased, during the same period, by 12%. The real reduction in government allocations in these years was, therefore, actually about 20%.

The Over-All Budgetary Picture

The over-all budgetary picture is quite clear. On the postivie side, the independent income of the universities, from tuition fees and contributions, increased: their dependency on government allocations declined from 70% of their total budgets deriving from government allocations to only 55%; student numbers continued to grow while staff numbers remained stable. On the negative side, government allocations decreased significantly and forced the universities to admit ten thousand additional students without increasing their budgets and with no possibility of renewing, improving or rejuvenating the academic and scientific system. If this situation were to last for only a year or two or even three years, it could be overcome. But this process has been continuing for twelve years, and the end is not yet in sight. The State will have to pay a very high price for its neglect of higher education, and the date of payment is no longer very far away.

* * *

The Five Budgetary Channels

The PGC's work has undergone many and meaningful changes in these years, both in its budgetary and planning aspects. The PGC continues to operate through five central budgetary channels: the direct global allocation; matching allocations; allocations for research; earmarked allocations; and allocations for development. Each of these channels underwent noteworthy changes.

The Direct Allocation

The largest item in the PGC's budget remains the direct allocations to the institutions of higher education. However, these allocations,

which made up about 85% of the total PGC budget in 1979/80, are now, in 1985/86, only about 75% of the PGC budget. The PGC preferred to preserve, and even increase, the real value of its special allocations. As a result, budgetary restrictions primarily affected the direct allocations and their share in the total PGC budget decreased.

Examination of Budget Proposals

The PGC continues, yearly, to review its method of and criteria for apportioning the direct allocation between the different institutions of higher education. A new method was formulated in 1981/82 and is still in use. According to this method, budgetary deliberations are conducted on two parallel planes. One team, headed by the Director-General and including the staff member in charge of the ordinary budget, holds detailed discussions with the heads of the institutions and examines their budgetary proposals, the indices on which they are based, the independent income of the institutions, proposed academic and administrative changes, changes in the work-force and all other elements that serve as a basis for the determination and allocation of budgets. This team evaluates the development and retrenchment programs of each institution and the PGC's direct allocation to it, the object being to achieve a balanced budget and a reasonable level of activity consistent with PGC policy and the aims and objectives of the institution.

Criteria for Apportioning the Budget

A second team, headed by the Chairman of the PGC, examines the most recent data on the "productivity" of each institution. These include student numbers and their differentiation according to degree level, field of study and proportion of full-time study, the number of graduates, their degree levels and fields of study, the budgetary value of research grants and other data reflecting on the scope and quality of research. These data serve as raw material for calculating the desired apportionment of the budget according to the "productivity" of each institution, with no direct reference to the size of its staff, its buildings, or any other background data.

No Single Formula

There is no single formula upon which calculations of an institution's "productivity" are based: the PGC believes that no such unequivocal formula is possible. The relative scope of teaching and research, relative cost per student at different levels and in different subjects, relative importance of the number of students compared to the number of graduates - none of these can be determined clearly and distinctly and there is a wide variety of possible parameters. If there was one clear and established formula, widely known to be the basis for the distribution of the direct allocations, it would immediately lead to undesirable distortions in the system. In countries where the funding formula is constant and published, there exists a clear incentive to admit more, less qualified, students, to award degrees to those who do not deserve them, to alter the names and descriptions of study programs to make them more "profitable", and to change the relationship between teaching and research, etc. The use of only one single formula also precludes consideration of future programs (as distinguished from those whose "productivity" can already be measured) and does not allow for temporary preference to institutions achieving budgetary restraint. In short, a single, pre-determined formula gives the omnipotent computer the power of decision rather than the collective balanced judgement of the committee members.

In view of these considerations, the PGC has refrained from establishing one binding formula for funding. Instead, the apportionment of the allocation is calculated according to a variety of reasonable formulas referring to the "productivity" of the different institutions. A reasonable range of apportionment (not a single amount) is reached for each institution.

The Method of Reaching a Final Decision

The range of apportionment, as determined by the second team on the basis of various formulas mentioned above, is compared with the proposals of the first team. If the two coincide they are presented to the PGC for discussion and approval. If there is any discrepancy between the analysis based on the "productivity" of the institution and the analysis of

the institution's budget proposal, the PGC takes both of them into consideration and, in particular, the "productivity" analysis. In this manner the PGC annually determines the allocation to each institution, based on its work program, proposed development and "productivity" of qualified academics and research.

Naturally there have been many discussions and second thoughts on this method during the twelve years of the PGC's existence. In the past six years several universities have protested against the method employed by the PGC or its results. The PGC has discussed this repeatedly and has reaffirmed the propriety of its method of determining allocations based on the variety of data mentioned above while stressing development programs, priorities, reward or punishment for restraint or extravagance, and using other objective criteria that cannot be compressed into one clear mathematical formula. It would, no doubt, have been easier to work according to one simple formula, but the PGC is convinced that this is not desirable and that its method is correct.

Matching Allocations

The matching allocations have their origins in the period that preceded the PGC's establishment. Ministers of Finance at that time, in the 60's and early 70's, promised benefactors that each Shekel of contribution would be matched by a Shekel from the Government. This practice was especially prevalent in regard to contributions for construction and endowment funds. Matching allocations for construction purposes were suspended at the end of the 70's and the PGC now participates partially in the construction of a limited number of new buildings. The situation of endowment funds is different. The PGC inherited a varied collection of obligations undertaken by past Ministers of Finance, with no clear principles behind them. At the beginning of the 1980's, when inflation in the US began to increase and the annual interest rate for dollar accounts approached 20%, the matching allocations due according to these obligations should have been an additional 20%, contrary to any reasonable economic logic. The PGC reached the conclusion that there is no justification for such a large matching allocation and there is certainly no justification for

such sharp discrimination between endowment funds in dollars and those in other currencies earning less interest.

Changes in the System

In 1981/82 the PGC completely altered its approach to matching allocations. The rules for the accumulation of endowment funds were changed and each institution was requested to present a detailed annual report of its portfolio of eligible endowment funds deposited in Israel. The PGC undertook to grant each institution, at the beginning of each year, an incentive equivalent to up to 7% of the total value of its endowment funds. This change brought about a unified attitude to all the funds, regardless of their manner of investment or history. After negotiations lasting a number of years, the PGC came to an agreement with each of the institutions on the inclusion of all its funds (with one exception at the Technion) in the new arrangement. The PGC's obligation was coordinated with the Minister of Finance and the Director of Budgets and Accountant-General of the Ministry of Finance. Unfortunately, in the first years of the operation of this new arrangement the Ministry of Finance delayed its payments for the matching allocations and, as a result, their real value was eroded. A significant improvement was noted in 1984/85 but, nonetheless, the PGC still was unable to transfer the full allocations to the institutions on time.

Increase in Endowment Funds

The PGC's reform of the system of determining matching allocations for endowment funds was instrumental in increasing the scope of the funds and transferring them to Israel from abroad. The increase in the value of the funds from $120 million in 1979/80 to $350 million in 1985/86 stems partly from the transfer of the funds to Israel, but mainly from the impressive increase in new donations to endowment funds. The sharp reduction in construction has diverted donations from construction to endowment funds and the institutions have given priority to increasing endowment funds. The PGC will continue to encourage the growth of endowment funds, which it views as an important impetus to increasing the institutions' independent income and reducing their dependence on the

State budget. In 1985/86 matching allocations will comprise 10% of the PGC's budget.

Allocations for Research

The PGC allocates large sums of money to special subjects based on open competition or detailed scientific analysis of research proposals or other projects. The PGC's central aim in these allocations is to encourage excellence and put the appropriate means at the disposal of researchers who have won the high appraisal of special professsional committees. There are no pre-determined quotas per institution in any of these research allocations: they are determined solely by merit and the share of the allocation awarded to each institution may change drastically from one year to the next.

Yigal Allon Fellowships

The Yigal Allon Fellowships were set up in 1980/81 to honor the memory of the Minister of Education and Culture who established the PGC. Each year 20 outstanding young researchers are awarded fellowships which finance their academic appointments for three years and ensure their future employment in the university. The most outstanding young researchers in Israel present their candidacy for these fellowships: in recent years the selection committees have noted with deep satisfaction the high, and rising, level of the candidates. At any given time there are about 50-60 Allon Fellows in the higher education system in all fields of research. To date more than 100 Allon Fellowships have been awarded. Unfortunately, the phenomenon known as the "brain drain" has grown in recent years: of the 60 researchers awarded fellowships in the past three years, seven have not yet returned to Israel from abroad.

The Basic Research Foundation

The PGC also financed the Basic Research Foundation, administered by the Israel Academy of Sciences and Humanities. In the past six years the PGC has increased the Foundation's budget from $600,000 in 1979/80 to $2.5 million in 1985/86, a very impressive increase in a time of severe budgetary cuts. However, even $2.5 million is modest relative to the needs of basic

research. The PGC hopes, in the coming years, to see the implementation of the proposal to establish an Israeli national research fund with an annual budget of about $20-30 million.

Scientific Equipment

Each year the PGC allocates about $2 million for the purchase of scientific equipment in the universities, based on competition between proposals presented by research teams. The PGC usually finances about half the cost of the equipment requested by the successful researchers. The second half of the cost is borne by the universities. This amount also is insufficient to meet requirements.

Other Funds

Just before the start of the 1985/86 academic year, the PGC decided to establish another research fund, in electronics and computerized industrial applications. The PGC hopes that there will be close cooperation with the electronics industry in this venture as there already is on the operation of a fund for the encouragement of young lecturers in electronics and computers. The PGC will continue its modest support for two additional research funds - one in cooperation with the Ministry of Defense and one in cooperation with the Israel Atomic Energy Commission. The PGC's various allocations for research will reach $9 million in 1985/86.

Earmarked Allocations

In addition to allocations based on competition, the PGC allocates substantial sums of money for special subjects to which it wishes to give preference. First and foremost of these is a special allocation for the development of the fields of electronics and computers which was inaugurated in 1984/85 and increased in 1985/86 to $8.3 million. Since the Government did not increase the PGC's budget to compensate for this allocation, this has necessitated the diversion of resources from other areas to the training of academically qualified manpower in preferred fields. The effort has, however, already shown results: in the past two years the number of students studying these subjects has increased significantly.

Additional earmarked allocations are made to university libraries, to computing centers, for micro-computers for use as teaching aids, and for inter-university cooperation. About $7 million will be devoted to aid to students through Perach (Tutorial Project), the Students Loan Fund, and to the pre-academic preparatory courses for underprivileged students.

Cessation of "Historical" Allocations

In 1979/80 the PGC still allocated small sums of money to a long list of institutes, activities and programs which it was obligated to support by virtue of various "ancient" agreements, some of which predated the PGC's establishment. In recent years the PGC has reached agreements with the parties concerned and has ceased its direct support. Such activities are now included in the direct allocations to the institutions of higher education.

The total earmarked allocations of the PGC, including electronics, computers, libraries and aid to students, will reach about $24 million in 1985/86, which, together with allocations for research, will comprise about 15% of the higher education budget.

Development Budget

The years of accelerated construction in the universities have ended. In recent years the system operated according to a five-year development plan approved by the PGC and the Ministry of Finance. Government participation in development in the universities was fixed at $10 million annually, which the Ministry of Finance undertook to preserve. But, in 1986 Government participation will have shrunk to less than $4 million! Most of the construction projects still being carried out in the universities are financed entirely from donations, for which PGC approval is nonetheless necessary. The total built-up areas do, however, still fill most requirements satisfactorily and the differences in physical crowding on the various campuses have lessened lately. The transfer of the Jerusalem Rubin Academy of Music and Dance and Bezalel - Academy of Arts and Design, Jerusalem, from very cramped and unsuitable quarters to renovated already existing structures on the Givat Ram and Mt. Scopus

campuses of the Hebrew University of Jerusalem is especially noteworthy in this connection.

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The Universities

The core of the higher education system is the seven veteran institutions. Of these, the Hebrew University of Jerusalem, the Technion, The Weizmann Institute of Science, Tel-Aviv University and Bar-Ilan University have been fully accredited and authorized for years to award all academic degrees. The University of Haifa and Ben-Gurion University of the Negev have, in the past six years, progressed toward the award of higher degrees. Ben-Gurion University is now authorized to award all three degrees in the natural sciences and technology and the bachelor's degree and M.D. in medicine. Last year it was authorized to award the master's degree in some of the social sciences and humanities. The University of Haifa is authorized to award the master's degree in most of its fields of study and the Ph.D. in five fields. The master's degree in economics awarded jointly by the University of Haifa and the Technion is of special interest: it is the first case of a degree awarded jointly by two institutions in order to prevent unnecessary duplication and utilize their combined potential. We hope that other institutions will follow their lead.

Everyman's (Open) University is a unique institution. Its development and progress in recent years have earned it the right to award the bachelor's degree and, more recently, to appoint professors. The University's activities extend throughout the country and its academic level is widely acclaimed.

Non-University Institutions

In the past six years four non-university institutions of higher education have become completely academic. Bezalel - Academy of Arts and Design, Jerusalem, the Jerusalem Rubin Academy of Music and Dance, Jerusalem College of Technology and Shenkar - College of Textile Technology and Fashion are all authorized to award the bachelor's degree in all their fields of study. About six years ago the PGC

began to follow their progress through a special sub-committee, and later in its regular sessions. Now, the PGC funds these institutions and they are included in its general work plan. Recently, arrangements were made to permit these institutions to appoint professors. A special sub-committee of the Council for Higher Education was established to approve the procedures for appointments, the appointment committees, and the appointments themselves, thus enabling these institutions to appoint professors, subject to the Council's strict limitations. The Hebrew University of Jerusalem and the Academy of Music now award a joint master's degree, the second joint master's degree in the higher education system (the more the better!).

Teacher Training Colleges

Five years ago, the Council for Higher Education, on the PGC's initiative, appointed a permanent sub-committee for the academic programs in teacher training colleges. These colleges are funded by the Ministry of Education and Culture, not the PGC, and rightly so. Teacher training is one of the central tasks of the education system: the special character of institutions dealing solely with this subject should be determined by the Ministry of Education and Culture. The policy of both the Ministry and the Council for Higher Education is to encourage the academization of a small number of teacher training colleges: this is the task of the permanent sub-committee mentioned above. The committee has prepared a prototype for academic studies in these colleges. Six colleges have already been either licensed or accredited, thus almost completing the academization program. Perhaps one or two additional colleges may join the academization process, and those that have received only licenses should strive for accreditation. However, we should be wary of unwarranted multiplicity of academic teacher training colleges and the quality and high level of the B.Ed. degree must be maintained.

Academic Responsibility

The universities maintain courses of study in different parts of the country for which they are responsible academically but not administratively. The term "academic responsibility" covers all the academic

components of study programs: students are admitted by the university according to its criteria; lecturers are chosen and appointed by the university; the curricula, courses and examinations are determined by the university and, most important, the degree is awarded by the university. Lectures are held away from the university campus, in various regional colleges throughout the country, from Tel-Hai in the north to Eilat in the south, in certain hospital schools of nursing and in a few other places. Neither the university nor the PGC funds these courses and staff are not university employees. As long as the courses are held under close academic supervision and have the approval of the Council for Higher Education, the PGC views them favorably.

Other Types of Institution

Two additional types of institution have come before the PGC recently. First, institutions that train academic teachers for the technological education system in order to alleviate the shortage of such teachers. The PGC and the Council for Higher Education have approved a prototype for academic studies leading to a "Bachelor in Technological Education" degree: we hope the new program can be implemented in 1986/87 or 1987/88. The second type of institution is a much more complex issue and no final decisions are expected in the coming months: the possibility of establishing an undergraduate college that will award only the bachelor's degree in certain fields. This should help alleviate the problem of increased demand for higher educaiton in the center of the country forecast for the 80's and 90's. Discussions on this proposal will be central to the PGC's planning work in the years ahead. The PGC has not yet determined its position on this proposal and will do so only after an in-depth examination and discussions.

New Units

In the past six years the PGC and the Council for Higher Education have altered significantly their attitude towards new units in the institutions of higher education. Academic life must, by its very nature, renew itself continuously, including its organizational frameworks. In principle, all sides have agreed that the opening of any new unit with

significant financial implications requires the prior examination and approval of the PGC and the Council. In practice, it is very difficult to define a "new unit". Extreme cases are clear-cut: a new faculty of medicine or law requires a preliminary discussion, budgetary evaluation, an examination of the country's needs, the setting up of a committee to study the subject and make proposals, further discussions in the PGC and a final decision in the Council. This is a long and arduous process but it is amply justified where such an important and broad-scoped subject is concerned. On the other hand, a new "study stream" based on a new combination of existing courses is only a marginal matter requiring, at most, a short discussion and perusal of the relevant documents: it must not be delayed for years by the procedures described above for a new faculty. In both these extreme cases the PGC's mode of action is clear. Problems arise when an organizational change is proposed whose implications are not so obvious. On the one hand, the consolidation of two existing faculties or the breaking up of one existing faculty into two is, on the face of it, a "new faculty", but, in fact, it is not new at all. On the other hand, even a marginal new "study stream" could be the harbinger of new, undesired developments. If, for example, an existing department of biology begins to offer an innocent looking series of courses in "agricultural biology" or "biological agriculture", we must ascertain that there is no intention of opening one day an additional faculty of agriculture, for which the State has no need. If an institution that does not have a faculty of medicine is interested in many courses of study in the para-medical subjects, even if financed entirely by the health system, we must ascertain that it is not trying to start a new school of medicine, for which the State has no need. It appears, therefore, that a seemingly marginal organizational change could have long-term implications while a seemingly important organizational change could, in fact, be marginal.

The New Approach to New Units

Previous regulations for new units in the universities were very strict. The universities could not abide by these regulations and, as a result, new units sprang up "underground" as it were, with no announcement, no

examination and no approval. A new arrangement was introduced in 1980/81 which has been operating successfully since then. The institutions undertook to inform the PGC of any new unit, organizational change in an existing unit, or the closure of any unit, regardless of how marginal or unimportant it may seem. The institutions refrain from implementing any such changes until they receive a reply from the PGC. The Council has authorized the PGC to examine all such proposals and to decide at once if each specific proposal requires a full-scale examination and approval by the Council or if, after a short examination, the Council's approval is not necessary. In many cases,the PGC is convinced, after a short discussion, that the proposed change does not require approval and the institution can implement it without any delay. Thus, academic life is able to procede and change as necessary unhindered. However, if the PGC determines that a detailed examination is necessary, whether for budgetary reasons, or the country's requirements for academic manpower in the subject at hand, or in order to prevent unwarranted duplication, then the lengthy process of discussion and examination, culminating in approval by the Council for Higher Education, is called for.

This new arrangement has justified itself. Several new programs, which might have been contrary to the general planning trends of higher education, were prevented. The PGC's strict follow-up of all new proposals has, no doubt, contributed greatly to the economy and efficiency in the higher education system achieved in recent years.

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In the past six years the PGC has become involved, against its will but with no alternative, in two central issues with far-reaching implications for the universities: tuition fees and staff wages. In the past the PGC refrained from dealing directly with these two problems because this would necessitate daily involvement with details, partnership in negotiations that are not always logical or orderly and, concerning tuition fees, would necessitate an undesirable political involvement. Even now

The PGC is not very keen on these two subjects but it regards itself as obligated to deal with them because of its central position in higher education.

Tuition Fees

Tuition fees in the universities are determined by the Government. The PGC is of the opinion that tuition fees and aid to students should enable every academically qualified student to study in an institution of higher education. However, most students should bear a reasonable share of the cost of their studies, whether by paying tuition fees during their studies or by repaying loans after graduation. The PGC is clearly in favor of raising tuition fees to a level approaching full coverage of expenses in the lowest-costing subjects. This means that tuition fees would be identical in all fields of study but a student of law or philosophy, for example, which are low-costing subjects, will be covering the lion's share of the expenses his studies entail while a student of the natural sciences or engineering will, while paying the same tuition fees, be subsidized to a much greater extent due to the higher cost of his studies. Tuition fees should be about $1,400 per year. It must be clear that no one is asking a law student to finance the studies of an engineering student. Neither of them will, in fact, be covering the full cost of their studies.

Loans for All

Many students are unable to pay such high tuition fees. The PGC has, therefore, proposed a system of loans for all, regardless of the student's financial situation, equivalent to between one third to one half of the tuition fee. These loans would be repayed in small installments after the completion of the student's studies. The PGC also supports the extension of Perach (Tutorial Project) so that any student who so desires may participate and receive a Perach scholarship, thus having to pay only a small sum of money during his studies.

The PGC has made this proposal consistently in each of the recent years and, indeed, much progress has been made in this direction. From 4,000

Perach tutors and tuition fees of $400 in 1979/80, tuition fees in 1985/86 are $1,150, there are 12,000 tutors and loans of $250 are available to all, with an extensive system of loans and scholarships. We are of the opinion that, with the end of the present arrangement in 1986/87, it will be possible, with one additional step, to implement our original program completely, with a significant expansion of loans for all and an additional expansion of Perach.

Against Graduated Tuition Fees

The PGC has always been opposed to graduated tuition fees in the universities. It is not feasible to determine tuition fees according to a student's financial situation since his and his parents' financial capabilities may differ greatly. On the one hand, no wide-scale reduction should be made for a student from a wealthy family who does not work or has no independent income. But, on the other hand, no adult should be forced to live at his parents' expense. Student associations have reached the same conclusion and, despite occasional public proclamations to the contrary, have always supported unified tuition fees. It is, therefore, not surprising that the government committees that dealt with tuition fees - the Navon Committee in 1976/77 and the Katzav Committee in 1981/82 - have, despite their great sensitivity to the difficulties facing students from lower economic backgrounds, refrained from initiating graduated tuition fees.

The PGC is also opposed to differential tuition fees, varying according to the subject studied. This could, perhaps, be considered for a few subjects, such as dentistry, in which costs are very high and the individual's potential income after graduation is also very high. In all other fields the unified tuition fees currently in force imply a selective subsidy in favor of the natural sciences, engineering, agriculture and medicine: students of the humanities and social sciences pay a much larger share of the actual cost of their studies.

Wages of the Administrative Staffs

The PGC is involved on two separate planes in the matter of wages in the universities. The administrative and technical staffs are employed according to nation-wide public sector wage agreements to which the universities are also a party. The PGC requires the institutions to implement these agreements without exception and is supported in this by the Wages and Labor Agreements Department of the Ministry of Finance. In the past six years there have been occasional meaningful deviations in this or that institution. In some cases the PGC imposed "fines" on the institution concerned and, in all cases, not one cent was alloted to cover the cost of these irregularities. However, futher improvement is called for.

Academic Staff Wages

Academic staff wages are another matter entirely. Wage agreements are signed within the university system and are not directly dependent on agreements in other sectors. There is academic importance to the structure of wages and far-reaching academic implications for details. The PGC was forced to involve itself in this subject following an arbitration ruling in the summer of 1981/82. At that time three arbitrators (one of whom, from the Ministry of Finance, was appointed as a "representative" of the universities) decided unanimously in favor of a large wage increase for academic staffs, to compensate for wage erosion in previous years. The Minister of Finance (at that time) refused to honor this arbitration ruling and a district court judgement in the same matter. To be more precise, the Minister permitted the universities to implement these rulings but refused to put the necessary funds for this purpose at their disposal, despite an explicit long-standing commitment to this effect by the heads of the Ministry of Finance. The higher education system was thus forced into a crisis that lasted almost two years and included evasion of commitments, delays in transfer of funds, incorrect up-dating of budgets, special tax regulations intended only for academic staffs, and any other action that could possibly harm higher education. Only at the beginning of the 1984/85 academic year was there any improvement in the attitude of the Ministry of Finance and the system was able to return to reasonable budgetary and administrative operation.

The Wage Agreement of April 1983

The PGC's involvement in academic staff wages was expressed in four main activities. First, translating the arbitration ruling into a new wage agreement with the academic staffs, which was signed in April 1983. The agreement was achieved with the intensive mediation of the PGC, which maintained close contact with the Director of Wages in the Ministry of Finance, the Committee of Heads of Universities and the academic staff coordinating council. This agreement has proven itself: it has been implemented since that date without any problems, disagreements or special difficulties.

Struggle with the Ministry of of Finance

The PGC's second line of action was a vigorous struggle against the Ministry of Finance's tendency not to honor the arbitration ruling or the district court judgement. After a difficult struggle lasting several months, the Finance Committee of the Knesset decided unanimously against the Ministry of Finance and ruled that the Government should cover part of the cost arising from the arbitration ruling. The PGC is of the opinion that the Ministry of Finance's stand during this period was unjust and regretable. The struggle left behind it two years of unceasing confrontation between the Ministry and the PGC and two years of deficits and loss of administrative control in the universities.

Wage Concessions of the Academic Staff

The PGC's third activity in the area of wages led to a voluntary agreement, signed in June 1984, whereby the senior academic staff agreed to a 6% reduction in their wages as their contribution to the country's difficult financial struggle and the plight of the universities. The academic staff was the only national employees' organization to agree to such a concession, and in doing so was responding to the PGc's call. In order to prevent this wage concession from becoming permanent, a comparative examination of wages was set for June 1985: the concession would remain in force if it were found that other academic employee groups had conceded wages, or wages would be increased (without returning the concession) if it were found that other academic wages had not decreased or had increased. In April 1985 the academic staffs agreed, unilaterally, to extend the concession for a further six months and to

delay the comparative examination until December 1985. The Ministry of Finance, for its part, undertook to cover the costs of any increase that might be due to the academic staffs following the examination. The PGC is proud of its part in this matter and is grateful to the academic staffs for their response. It hopes that the Ministry of Finance will honor its commitment: the Minister of Finance praised the PGC for its important contribution.

Changes in the Structure of Wages

As its fourth action in the area of academic staff wages, the PGC, together with the Ministry of Finance, initiated, in April 1983, expansion of the research increments granted to those members of the academic staff who are awarded research grants from a non-university source. The funds necessary for these increments were obtained by reducing other wage components, with the consent of the academic staff union. The result was the beginning of a differential wage system, in favor of those academic staff members involved to a large extent in research and working solely in the university, and less favorable to those staff members involved primarily in teaching and holding other positions in addition to their work in the university. The PGC views this as a first step in the long process of further differentiation in higher education salaries, the purpose of which is unified and equal regulations for all, allowing for the encouragement of research, excellence and willingness to undertake more teaching responsibility. As a part of this new arrangement, the practice of employing part-time guest lecturers has been abandoned: non-staff lecturers are now payed at an hourly rate.

The PGC as Mediator

The PGC carries out its involvement in academic staff wages by mediating and convincing, not by issuing guidelines and directives. The PGC views itself as obligated to maintain close contact with all the parties concerned - the Director of Wages in the Ministry of Finance, the heads of the universities and academic staff organizations - and try to bring them to a common stand. The atmosphere surrounding negotiations has improved considerably since the PGC entered the picture. However, it

must be kept in mind that the PGC is not and cannot be a party in the formal negotiations between employees and employers: it represents neither side. The PGC's strength stems from its acceptance by all sides as a fair mediator, able to perceive the interests of the State, the employers (the universities) and the academic staffs, which together determine the character of higher education in Israel.

Distorted Wage System

Unfortunately, the wage system in the public sector in Israel is full of the distortions, invalid arrangements and strange stratagems that characterize the Israeli economy. The higher education system is part of Israel so that it is not surprising that wages in the system suffer from the same defects. The PGC strives for the correction of those defects that can be corrected, without causing significant harm to the system in the process. Unfortunately, the PGC cannot separate itself from the wage system prevailing in the country. The PGC's achievements were modest and we cannot derive much satisfaction from the present situation.

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Planning the System

In the past six years the PGC has been active in examining the scope of teaching programs and the training of manpower in specific professions. Usually the PGC relied on others who examined - on its or their initiative - the needs of the country in coming years. Conclusions were drawn in many fields, and policies determined.

Medicine

A small excess of doctors exists and is forecast for the future. However, the medical schools in Israel together supply only about half the number of new doctors entering the health system. There is no disagreement with the fact that, on the average, the doctors graduating from Israeli schools of medicine are much better trained than those who studied in Italy, Romania or the Soviet Union. If we want to grapple with this

over-supply of doctors, it would be a folly to reduce the "flow" of the better doctors to the health system while allowing an unlimited flow of doctors from other sources. The PGC has, therefore, decided not to decrease (but also not to increase) the number of medical students in Israel. Despite this decision, the number has decreased somewhat due to the closure of a special program at Tel-Aviv University and a certain reduction at the Technion. The PGC is of the opinion that the contribution of the schools of medicine to medical research and the quality of the health system in Israel is of the utmost importance. The PGC is also active in bringing about closer cooperation between the schools of medicine and the peripheral hospitals in the north and south of the country. The PGC rejected a proposal to establish a medical school in the Galilee and a proposal to establish a private medical school on a commerciai basis.

Dentistry

As there exists a certain shortage of dentists, the Council for Higher Education and the PGC decided to expand the two existing schools of dentistry, in Jerusalem and Tel-Aviv, but rejected the Ministry of Health's proposal to establish additional schools of dentistry. A new building for the School of Dentistry at Tel-Aviv University is under construction, with PGC participation, that will enable the school to double the number of its students. The PGC is of the opinion that no additional school of dentistry is necessary in the next five years.

Para-Medical Professions

The PGC supports the Ministry of Health's stand in favor of gradual academization of the para-medical professions - nursing, physiotherapy and occupational therapy. The General Sick Fund ("Kupat Holim") and the Hadassah Medical Organization also support this stand. Much progress has been made in recent years and many study programs are now academically accredited. However, the PGC is adamant that the health system, not the higher education system, cover the cost of this process.

Veterinary Medicine

Four years ago, upon the conclusion of discussions that lasted six years, the Council for Higher Education approved the opening of a school for veterinary medicine that will train about 20 Israeli students a year. This school will open in 1985/86 as part of the Faculty of Agriculture of the Hebrew University. There is a plan to decrease the number of Israeli students to 15 per year, to be joined by an additional 15 students from abroad. The students from abroad would pay higher tuition fees, which should cover the cost of the school's operation.

Electronics and Computers

A severe shortage of qualified manpower in electronics and computer sciences exists in industry and other sectors of the economy. The PGC devotes resources and gives clear budgetary priority to these subjects. These efforts have borne fruit in the past two years. At the Technion the number of students in these two fields increased significantly from 1983/84 to 1985/86. A special intensive course in electronical engineering is opening in 1985/86 at Tel-Aviv University. At Ben-Gurion University of the Negev the number of students of electronics admitted in 1985/86 increased by 50%. Jerusalem College of Technology will double the number of its students in a few years. Tel-Aviv University, Bar-Ilan University and the Hebrew University expanded their departments of computer sciences. All the institutions have increased the number of students admitted for advanced degrees. Special allocations are made for the purchase of scientific equipment, micro-computers and central computers. The PGC participated in the construction of new buildings for electrical engineering at the Technion and Ben-Gurion University and an additional building, at Tel-Aviv University, is under construction. A new research fund for electronics and computerized industry is being set up in 1985/86. All these achievements (excluding the intensive course of study at Tel-Aviv University) were made without any increase in the PGC's budget: reductions were made in other areas in order to redirect resources.

Other Fields of Engineering

In other fields of technology there are fluctuations in supply and demand. There was a shortage of chemical engineers but this year there was a welcome increase in the number of students in this field. Fluctuations in aeronautical engineering are influenced by the ups and downs of the "Lavie" airplane project. In the fields of civil engineering and agriculture there has been a decrease, both in demand and in the number of applications for study. Mechanical engineering is undergoing a major transformation from the traditional fields to new computerized fields such as robotics and computer assisted design and manufacturing.

Natural Sciences

For years there has been a worrisome decline in the number of students studying physics and chemistry. This decline has, happily, ceased and in the last two years the number of students in these fields has increased, especially in physics which is much in demand by industry. The universities can easily admit additional students in these fields and the existing infrastructure, including teachers and buildings, is satisfactory. In the life sciences the more "modern" fields such as biotechnology and genetic engineering are gaining strength while the more traditional fields such as zoology and botany are weakening. The number of students is stable.

Agriculture

The single faculty of agriculture in Rehovot continues to fulfill its mission successfully. A gradual transformation to high-technology agriculture is taking place, and more and more people in positions of authority in agriculture now feel the need for academic training. The number of students in the faculty of agriculture has not changed significantly in recent years.

Social Sciences

The social sciences, and in particular management studies, have undergone wide-scale expansion in the past six years in response to the needs of the economy. The PGC recommended that Tel-Aviv University and Bar-Ilan University halt the increase in the number of students studying for a

bachelor's degree in these fields. Both institutions have complied and the number of students has remained stable in the past two years.

Humanities No far-reaching changes have taken place in the humanities, Jewish studies and the arts. The PGC's investment in these fields is less than 10% of the total budget. The PGC feels that these fields should no longer be adversely affected since they are, so to speak, the very soul of the higher education system.

Social Work A special committee examined forecasts of demand for social workers and, as a result, the PGC instructed the universities to freeze, or even reduce somewhat, the number of students in this field. However, shortages in the north and the south of the country justified a modest diversion of resources to the study of social work at the Tel-Hai Regional College and Ben-Gurion University of the Negev.

Law The PGC is of the opinion that no new faculty of law, in addition to the three existing schools of law in Jerusalem, Tel-Aviv and Bar-Ilan, is necessary in the coming years. Perhaps in five years there may be justification for a new faculty and in such a case the logical location would be the University of Haifa. However, this subject is not high on higher education's list of priorities and no decision has been made.

Inter-University Activities The PGC has consistently encouraged inter-university activities. In the past six years it has established an inter-university computing center in Tel-Aviv; a communications network connecting university computers in Israel with those abroad was established; implementation began of a unified and coordinated computing system linking all university libraries, based on the Hebrew University's "Aleph" system; the Inter-University Institute in Eilat was established, bringing together oceanographers, marine biologists and geologists from all universities; the Israel

Academic Center in Cairo was set up and assists all Israeli academics in Cairo; the institutes for desert research and for the Ben-Gurion heritage in Sde Boker have been expanded and, while remaining part of Ben-Gurion University of the Negev, are available to scientists from all institutions and are supported by inter-university committees. The Committee of Heads of Universities established, with PGC support, a National Center for Testing and Evaluation, replacing many separate centers in each institution. Despite the PGC's important achievements in furthering inter-university activities, much still remains to be done. The PGC has been largely unsuccessful in convincing the universities to coordinate their major purchases (excluding computers, where there is coordination and utilization of joint purchasing power).

Student Numbers

The PGC refrains from dictating to the universities the number of students they may admit. Such detailed central dictation exists in several western European countries, but the PGC feels that this arrangement is not necessary in Israel. Nonetheless, the PGC has advised Tel-Aviv University and Bar-Ilan University to stop the increase in students studying for a bachelor's degree, especially in the social sciences. The PGC hopes for a significant increase in student numbers at the Hebrew University, the Technion, the University of Haifa and Ben-Gurion University. The PGC's aim is to strengthen Jerusalem and the north and the south of the country at the expense of the central part of the country, and to strengthen scientific and technological subjects. This policy bore partial fruits in 1984/85: there was a satisfactory increase in the number of students admitted to the Technion and Ben-Gurion University while the number of undergraduates admitted to Tel-Aviv University and Bar-Ilan University has frozen, or even decreased. The PGC hopes this trend will continue.

Reporting and Data Bases

The PGC is not satisfied with its own achievements and those of the universities in obtaining budgetary and personnel data on time and with a sufficient degree of accuracy. The PGC carried out comprehensive

personnel surveys for 1978/79 and 1981/82 and more restricted personnel surveys for 1982/83 and 1983/84. These surveys portray a detailed picture of the academic, administrative and technical personnel employed in the universities. We are not yet able to pinpoint the exact number of university employees at any given moment. The reason for this is simple but not justified: some of the institutions are not yet able to obtain this data on time. The PGC has given priority to this problem but its solution depends on the institutions themselves.

Current budgetary reporting during times of galloping inflation is also deficient. For this, however, the institutions are only partly to blame. Even when we have current data in Shekels, it is difficult to understand them. On the other hand, translating all the figures to their dollar equivalents also gives a distorted picture since wages are a predominant element in budgets and are linked to other indices, which are not always linked to the dollar. The PGC has, in the past year, been employing a new, clear and unified method of computing, based on a "basket" of indices applying uniformly to the entire system. This represents a major step towards improving the joint work of the PGC and the institutions in preparing budgets, transferring funds and reporting implementation of budgets. However, there is still room for improvement.

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These six years have been hard - full of struggles and difficulties, but also full of achievements. The balance shows many gleams of light but also many shadows. New initiatives, expansions, developments and growth in certain areas were at the expense of cutbacks, restrictions and even reductions in quality in other areas. During some of this time the Ministry of Finance's attitude toward the higher education system bordered on open hostility. The situation has improved in the past year: a fair dialogue can now take place with normal debate between the two sides. The administrations of the institutions cooperated with

the PGC and in general complied with its proposals and requests. There were heated and sometimes unpleasant arguments with this or that institution. Through all the arguments, struggles and confrontations it is sometimes hard to remember that we are part of one of the most important systems in Israel. When we are involved in a detailed argument on the scope of funding in a certain month or on terms for student loans or on details of academic staff wages of government participation in construction of this or that building, we sometimes lose sight of the fact that we are building the country's infrastructure for the year 2000. Little mistakes made today will influence our industrial future; an unjust attack on wages yesterday means a brain-drain today; momentary haphazard cutbacks in the academic staffs mean a loss of one or two years "supply" of young researchers. One of the PGC's most difficult tasks has been to convince the country's leaders, Knesset committees, Ministry of Finance officials and the university administrators that together with our daily involvement in budgets, wages, personnel and various regulations, we must bear in mind the Biblical verse: "Remove your sandals, for the place whereon you stand is holy ground": we deal with the cultural and scientific soul of Israel in future generations. If we have succeeded somewhat in instilling the necessary reverence - we have our reward, and if we have failed to do so - it is regrettable.

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The conclusion of my term of office as Chairman of the PGC is an appropriate time for expressing gratitude. First and foremost, thanks are due to my colleagues in everyday work - the staff of the PGC and the Council for Higher Education, headed by the first Director-General, Gedalia Yaakoby, who set up the PGC and served as my guide during my first years in office, and the second Director-General, Simcha Landau, who started work energetically and improved patterns of work in many areas. Both were hard working and loyal to their positions, to the higher education system, and to the PGC's Chairman, who did not always make their task any easier.

The entire PGC staff have contributed much and have been a loyal support in difficult times. The PGC owes many of its achievements over the years to its staff. I cannot mention them all by name, but I am grateful to all of them. Two have helped me personally, loyally and with endless devotion: Esti Regev, Secretary to the Chairman and the Director-General, and Shmuel Chen, the Council's chauffeur. For their diligence and devotion, strange hours of work and adaptation to all eccentricities, I am grateful.

Two veteran supporters of the PGC during the years of its existence are retiring now. Firstly, Shmuel Bendor, consultant to the PGC since its establishment. I wish that all future PGC chairmen could have such an advisor as Shmuel Bendor. He made central contributions to the amendments that have been made and will be made to the Council for Higher Education Law, initiated many important activities, prevented us from making many mistakes and was a constant source of common sense and good advice, uniquely combining resolution, integrity and pleasant demeanor.

Secondly - Mendel Lieberman, Deputy Accountant-General in the Ministry of Finance, who served, in fact, as the PGC's accountant. For various reasons, both in principle and practical, the PGC chose to take advantage of the services of the accountant-general instead of employing its own accountant. Mendel Lieberman knew how to watch over the country's finances, as an accountant should, but also how to watch over higher education, as a thinking person should. We are deeply grateful for this.

It was a pleasure in the past six years to work with all PGC members: Yehudith Birk, Yitzhak Gilat, Nehemia Levtzion, Itzhak Mann, Gurion Meltzer, Oded Messer, Kenneth Preiss, Rachel Shalon, Anita Shapira, Simha Soroker, Daniel Sperber, Gaby Warburg and Yehoshua Yortner. With some I have worked almost six years and with some only a few weeks or months. All contributed their wisdom, experience and time to the PGC's work. All gave me, personally, faithful friendship. All that the PGC achieved in these six years is due to its members who devoted all their energy to its affairs.

Fifteen presidents and fifteen rectors, many directors-general, heads of non-university institutions, deans, deputy directors-general and many others in the higher education system have cooperated with the PGC in these six years. We have argued with all of them, usually in a friendly spirit, but sometimes in anger. All had the welfare of Israeli higher education in mind, each in his own way and understanding. Sometimes the PGC was their mouthpiece in struggles with the Government. Sometimes they viewed the PGC as a government body, making cuts and requests, criticizing them and serving as a target for their complaints. I am grateful to all for their goodwill, understanding and cooperation.

I am especially grateful to those in the government establishment, in the Ministry of Finance and out of it, who evinced understanding of the higher education system's importance and advanced its cause in difficult times. Unfortunately, not all those in positions of authority in these years could be included in this category.

Many members of Knesset upheld the PGC's stand in its arguments with the Government or with the universities. Of these I must mention, gratefully and cordially, the two chairpersons of the Knesset Education and Culture Committee - Ora Namir, who served during the first five of the past six years, and Nachman Raz in the past year.

Four Ministers of Finance served during these six years: Yigael Hurwitz, Yoram Aridor, Yigal Cohen-Orgad and Yitzhak Modai. All attempted, as their office demands, to trim the State budget as much as possible. All viewed the PGC as a positive and important factor in the higher education system. All respected the PGC's authority and prevented attempts to circumvent it. All were friendly in their attitudes to the heads of the PGC and their doors were always open for us. For this I am deeply grateful. All Ministers of Finance were in constant, but natural, debate with the PGC. However, during four of these six years (1979/80, 1980/81, 1981/82 and 1984/85) the PGC was treated fairly despite the various and sundry arguments and cutbacks. In 1982/83 and 1983/84 this was not the case and that is regrettable.

Two Ministers of Education and Culture served during these years: Zevulun Hammer and Yitzhak Navon. Both have consistently upheld higher education and the PGC. Both allowed the PGC to fulfill its task independently and autonomously and gave it unlimited support and backing. Both granted me true friendship and I am indebted to both of them.

To the PGC's third Chairman, Prof. Jacob Ziv, I wish with all my heart full success and satisfaction in a difficult and intersting post. The PGC's excellent staff - members and employees alike - will support him. We hope that the Government also will uphold higher education in the years to come. I am convinced that Jacob Ziv will be able to successfully and resourcefully navigate the ship of higher education.

Last but not least - my wife Aviva. Only those PGC members and staff close to me realize her great contribution to my work in these six years. On their behalf, and on my own behalf, I would like to publically thank her on these pages.

Jerusalem, November 1985 Haim Harari